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CASE TEACHING

IN

MEDICINE

A SERIES OF GRADUATED EXERCISES IN THE DIFFERENTIAL DIAGNOSIS, PROGNOSIS AND TREATMENT OF ACTUAL CASES OF DISEASE

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BOSTON, U. S. A.

D. C. HEATH & CO., PUBLISHERS

1906

PREFACE

In studying one of these cases, it is well to begin by reading it through once with care and then asking one's self: —

1. Is this case acute or chronic, chiefly local or mechanical, or chiefly general (toxic, infectious)?
2. What organ or system (nervous, urinary, respiratory, circulatory, etc.) seems especially involved by the disease?
3. What are the essential features in the case and what are the accidental or secondary concomitants? In short, *What is the gist of it all?*

Some possible diagnosis should be written down and "tried on." Points in favor of each and points against each should be listed and the evidence balanced. Whatever has the most in its favor and the least against it should be called the diagnosis.

Multiple diagnoses in a single case are to be avoided whenever it is possible to avoid them, because in practice it usually turns out that the many symptoms depend on one disease and not on many.

During class exercises it is well to take full notes on the blank pages provided in the case book for the purpose. Here may be written, for example, lists of the causes of œdema, of cough, or hæmaturia; diets, prescriptions or devices recommended by the teacher in the treatment of the diseases discussed.

190 Marlboro Street, Boston
February, 1906.

CASE TEACHING IN MEDICINE

A liquor dealer, 47 years old, is seen December 15, 1904. His father died at 67 of "obstruction of the bowels," his mother at 63 of pneumonia. He regularly used whiskey and beer to excess up to 1891 when he had an attack of bloody vomiting after a debauch. He had a similar attack in 1895 and again in 1902. He never was kept in bed more than a few days, and always returned to business within a week. After each attack he gave up all alcohol for periods varying from six months to two years and then relapsed into his former habits. He has suffered for years from digestive disturbances, "sour stomach," which have been much worse during his periods of alcoholism. After twenty months of abstinence he began to drink about three months ago, and since then has complained of anorexia, pain, eructation of gas, nausea, and vomiting. The pain is located in the epigastrium, comes on ten to fifteen minutes after eating and is relieved by vomiting. On the afternoon of December 11 he vomited a small quantity of bright red blood, and since then he has vomited after nearly every meal, but he has noticed blood only on one other occasion, two days ago, when he threw up nearly a pint. He has noticed black stools for several days. He has recently lost about 15 lbs.; present weight 185. Mucous membranes pale. Heart normal in size, action regular, soft systolic murmur at apex, not transmitted. Pulmonic second sound not accentuated. Abdomen tympanitic throughout, slight tenderness on pressure over epigastrium. Liver dulness extends from fifth interspace to two fingers' breadth below costal margin where a smooth edge can be felt. Lower edge of spleen felt on full inspiration. Physical examination otherwise negative. Pulse 100, regular, of good quality. Temperature 98.4°. Urine, sp. gr. 1020, acid, no sugar, no albumen, Hg. 50%, red cells 3,172,000, no nucleated cells. Leucocytes 9200.

1. What is the type of anæmia in this case?
2. Significance of the patient's family history?
3. What causes produce tarry stools?
4. How do you interpret the cardiac signs here present?
5. What are the commonest causes of splenic enlargement?
6. What causes of hæmatemesis should be considered here?
7. Diagnosis? Prognosis? Treatment?

CASE 2

A fireman of 26 was exercising engine-horses, riding one and leading another. The led horse fell and, as he struggled to rise, wrenched severely the arm of the fireman, who had not let go the halter. He thought nothing of it at the time, but twenty-four hours later began to be distressed by a sense of weight and pressure beneath the sternum, near the attachment of the wrenched pectoral Under medical advice he was laid off duty and treated with liniments and counter-irritation, but without relief. Three weeks' vacation in the country benefited him, but on his return to work he was unable to drive or even to put on the foot brake without great exhaustion. Now he cannot walk a block fast without feeling tired out and experiencing a sense of pressure under the sternum. His wife tells him that he moans and grinds his teeth in his sleep. He has lost flesh, strength, and color.

The heart's apex is in the fifth interspace and mammary line. There is reduplication of the apex second sound, and at the fifth left costal cartilage a systolic murmur, louder in the recumbent position. The pulmonic second sound is slightly louder than the aortic.

Interrupted inspiration is detected in both fronts and both interscapular regions, also transient rales in the sixth intercostal space in the left axilla. Abdomen negative. The blood and urine are normal.

1. What is the usual significance of moaning and teeth grinding during sleep?
2. How is the loss of flesh, strength, and color to be explained?
3. How are cardiac murmurs affected by change of position?
4. Diagnosis? Prognosis? Treatment?

A coachman, 42 years old, of good family history, is seen April 20. Health has always been good except for a severe attack of penumonia three years ago, which was followed by phlebitis in the left femoral vein. The left leg has remained somewhat swollen, and has been tense and rather painful toward night. It has caused rather more discomfort than usual during the past few days. Yesterday morning he got up feeling as usual, but on reaching the house of his employer felt nauseated and had some diarrhœa, which continued during the day. He felt feverish and weak. Went to work again this morning, but gave up after half an hour owing to nausea and pain in the lower abdomen, and went to bed. At eleven o'clock had a distinct chill. Was seen for the first time at 12.45 P.M. The patient was a stout man who looked acutely sick. The chest was negative. Owing to a thick fat layer, examination of the abdomen was not altogether satisfactory; it was somewhat distended and tympanitic and there was considerable tenderness over the lower portion below the level of the iliac crests, but no area of special tenderness, nor could a tumor be felt anywhere. The left leg was somewhat larger than the right throughout. The skin below the knee pitted slightly on pressure. There was a little tenderness over the femoral ring. The temperature was then 103, pulse 110, respirations 26. At 3 P.M. urgent summons were received to call immediately as the patient had had a convulsion, was breathing rapidly and with great difficulty, and was very cyanotic.

1. What are the commonest causes of cyanosis?

2. What important data do you miss in the account of this case?
urinary examination, white count, heart & lungs.
3. Do you expect a leg to remain swollen three years after an attack of phlebitis?
nearly always deep large for rest of patients life.
4. Diagnosis? Prognosis? Treatment?

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4. Diagnosis? Prognosis? Treatment?

A married woman, 43 years old, is seen April 9. Family history negative. Has had three children, the youngest being twenty years old, and no miscarriages. Eighteen years ago she began to suffer from profuse menstruation which became so excessive and exhausting that eighteen months ago the uterus and appendages were removed. In spite of the cessation of the hemorrhages she says that she has lost ground and grown paler more rapidly since the operation. For the past six months nose bleeds have been frequent and at times so excessive that the nares have been plugged. She has had "feverish turns," lasting several days at a time, but her chief complaint has been of weakness, great dyspnœa, palpitation, and attacks of faintness. Micturition has been more frequent for the past few years, but without any polyuria. Her legs and ankles have been considerably swollen, but this has been much less apparent lately. About a month ago she had a copious epistaxis, followed, four days later, by a second, less severe, and has remained in bed ever since. Her temperature was first taken March 28, when it was found to be slightly above normal. Without discoverable local cause, it rose steadily till it reached 103° six days later. It fell to normal two days later, but the evening record has since been several times as high as 99.4°. With the rise in her temperature, her color, previously very pale, became lemon-yellow, but the conjunctivæ remained a pearly white. She was greatly exhausted and somewhat delirious, vomiting occasionally either food or bile-stained mucus. A very grave prognosis was at this time given by the attending physician.

When seen April 9, patient reported herself as feeling very well, and her mental condition was bright. She was markedly anæmic, but with only a slight yellow tinge remaining. The tongue and mucous membranes were very pale. There was a deep ulceration on the left side of the nasal septum and several crusts were seen on the right. A systolic murmur was heard in the vessels of the neck. The heart's apex was in the fifth space in the nipple line. The cardiac dulness extended a finger's breadth and a half to the right of sternum. A systolic murmur was heard all over the precordia, rough over the base, but becoming softer as the apex was approached and transmitted a short distance into the axilla. The pulmonic second was slightly accentuated. The upper border of the liver was at the fifth rib, and its smooth edge could be felt two fingers' breadth below the costal margin. The edge of the spleen was readily palpated. The ankles were slightly œdematous. The ophthalmoscope showed a normal fundus. Physical examination was otherwise negative.

Urine, sp. gr. 1012, pale, acid, contains the slightest possible trace of albumen. Sediment slight, consisting of leucocytes, and a rare normal red cell; no casts. A blood count on April 3 showed 300,000 reds, 5400 whites, Hgb. 10%. A differential count of 400 whites showed polymorphonuclear 72%, large mononuclear 12%, small mononuclear 15%, eosinophiles 1%. Ten megaloblasts, 5 normoblasts, and 3 microblasts were seen. Poikilocytosis, macrocytosis, and polychromatophilia were present. A second count made to-day showed 1,000,000 reds, 5800 whites, Hgb. 25%. A differential count of 300 white cells showed no special change in the proportions. Four megaloblasts, 11 normoblasts, and 2 microblasts were found.

1. What are the common causes of frequent micturition in women and in men?

2. What are the possible causes of a systolic murmur like that here described?

3. How are the "feverish turns" to be explained in this case?

4. Diagnosis? Prognosis? Treatment?

A vigorous man of 62 comes of a gouty family, many members of which have been long-lived. His mother is said to have died of cancer, seat unknown; and a paternal uncle of gastric cancer. In recent years the patient had had two brief attacks of pain and swelling in the great toe-joint; he has also had eczema, said to have been considered of gouty origin. For some years he has occasionally lost moderate quantities of fresh blood from the rectum. He has been a good, though not a free liver; and has always taken much exercise in the open air.

Six months ago he was duck shooting on Lake Erie, and, the water being very low, he says that for three weeks he worked harder than ever before in his life, pushing and dragging his boat in shallow water. After returning home he felt tired and was indisposed to exert himself in any way. Soon after he began to suffer every few days about 1 P.M. from severe continuous pain just below the right costal border and outside the edge of the rectus muscle. The pain bore no apparent relation to the quality of food; the attacks lasted from one half an hour to three hours, and were relieved by the passage of gas upward or downward. Sometimes the escape of gas seemed to be promoted by cooking soda or aromatic spirits of ammonia. The pain is sometimes very sharply localized, even to a point no larger than the finger tip; but sometimes spreads to the left and downward over an area as large as the palm of the hand. Gradually the attacks have increased in frequency and come on daily; of late, toward 5 P.M. There has been at times slight nausea, apparently due to the extreme severity of the pain. He never vomited until two days before he was seen, then repeatedly during the night; the vomitus was not characteristic. Position does not seem to influence the pain except in so far as it may aid the expulsion of gas.

A week or ten days before he was seen, he had on two successive days black movements of the bowels, one very copious, unattended by rectal pain, faintness, or subsequent loss of color. Fever has been absent, and the urine negative. The appetite and ordinary digestion have been fair; there has been no noticeable loss of flesh or color. The tongue is slightly coated, the fingers show some gouty deposits, there is some tenderness on deep pressure just above and to the right of the navel; the smooth edge of the liver can be felt to descend below the right costal border, but only on full inspiration. Physical examination is otherwise negative.

1. What diseases often cause epigastric pain relieved by the belching of gas?

2. What type of stomach trouble is to be expected at the age of 62?

3. What is the relation of the gout to the other symptoms?

4. Diagnosis? Prognosis? Treatment?

A child, 7 years of age, of healthy parentage, had made frequent complaint of pain in the left side of abdomen and was found by her mother to be rapidly losing flesh and strength. There was also an account of quite frequent voiding of high-colored urine, with a brownish sediment.

After several weeks the emaciation progressing, the mother noticed that the left side of the abdomen was larger than the right; that there was pain and tenderness on pressure, and that periods of "constipation" occurred, followed by the escape of large quantities of semi-liquid fæces, without much change in the size of abdomen or relief to the pain and tenderness in left lumbar region.

About this time the patient was taken to a physician, who confirmed the mother's observation of loss of flesh and strength, for the child was pale or sallow, emaciated and extremely weak. In the left lumbar region a mass, irregular in outline and surface, painful on palpation, extended into the umbilical region and upwards to the margin of ribs in front; percussion showed tympanitic resonance over the central portion of the tumor. Elsewhere the tumor was flat on percussion.

A specimen of urine showed: Reaction, acid; sp. gr. 1014; sediment, brownish and consisting of blood and brown granular matter. There were no casts, and the quantity of albumen present was small.

1. What abdominal tumors are most frequent in children?

2. How are tumors of the kidney to be distinguished from enlargement of the spleen?

3. Diagnosis? Prognosis? Treatment?

Dr Lord -

Popular diagnoses -
Hypernephroma
Cystic disease
Pyonephrosis (T.B.)
Intestinal obstruction.

① Pyonephrosis -
against: absence pus in urine for
(but - no pus if main plugged)
absence of temperature. investig.
Character of tumor. If T.B
absence of family history.
Pain not for or against:-

② Cystic disease
against: would not explain
blood. or the severe constit. upset. for shape of tumor is consistent

Diff. diagn. Tumors spleen + kidney

Spleen: notch -
less pain.

Kidney: irregularity.
lymph antic resonance in front.

③ Tumors of intestine -
Obstruction (esp. intussusception).
Signs point more toward pressure.

④ Hypernephroma -
against: absence of metastasis
for is most plausible diagnosis
note: "sarcomata" of kidney now thought in most cases to be hypernephromata - developing from adrenal rests.

Tentn - op.
Progn - poor.

A married woman of 50, has had three children, the youngest 17, no miscarriage, and has passed the menopause without disturbance. Soon after the birth of her second child she became unconscious with dilated pupils, had convulsions, right hemiplegia and aphasia but recovered entirely. Her domestic life has not been happy for some years. During the eighteen months that she has been under the care of her present attendant she has had emotional attacks, periods of mental depression and insomnia, goes to bed, refuses food, and if crossed becomes hysterical. Passed last summer in the country with benefit. In the autumn she went to the office of her physician for swelling of the face and puffiness of the eyelids, and complained that the skin was dry and perspiration deficient. Nine months later these symptoms persist. She denies special sensitiveness to cold. Several examinations of the urine have been made with negative results. The twenty-four-hour quantity is not known. The pulse is 72, regular; the temperature normal; the blood negative; the tongue clear. The complexion is somewhat waxy; the eyelids are rather baggy and translucent; the whole face had a puffy look. The skin — on a warm day, June 17 — is slightly moist. Visceral examination is negative except for a mobile right kidney. No motor paralysis; reflexes and sensibility normal.

1. What is the significance of the mobile right kidney in relation to the other symptoms of this case? Right Kidney palpable in majority of women.
2. What was the cause of the hemiplegia and aphasia?

3. What test would make the diagnosis easier? Iso therapeutic test.
4. Diagnosis? Prognosis? Treatment?

Diagnosis: Myxoedema
Prognosis: good - in nearly every case.
Treatment: Start gr ii t.i.d
increase in ten days to gr v t.i.d.
symptoms indicating discontinuance.
Tachycardia
Mental excitement. Headache.
Tremor.

Popular diagnoses

17 yrs Eclampsia — now Hysteria
Haemorrhage (cerebral) — Myxoedema
Embolus (phlebitis) — Chr. nephritis
Hysteria — arteriosclerosis
Tumor of brain — neurasthenia
Ptosis of R. Kidney

Rule out –
Tumor of brain – subsequent history
Embolus ++ Hae – not likely to get thru lungs. (if starting in veins) ~~arteries~~ origin of cerebral emboli is pulmonary veins – auricle – mitral valve.

Eclampsia:
because cerebral symptoms cleared up.
note – paralysis longest in clearing up in flexors of leg and dorsum of foot.
Crossed paralysis: lesion below internal capsule.
Convulsions are uncommon in hae.

Chr. nephritis
normal urine would not rule out.

Myxoedema
puffy eyelids first sign – a little translucence.

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1. What are the commonest causes of cyanosis?

2. What important data do you miss in the account of this case?
urinary examination, white count, heart & lungs.
3. Do you expect a leg to remain swollen three years after an attack of phlebitis?
nearly always does cause for rest of patients life.
4. Diagnosis? Prognosis? Treatment?

J. B., male, aged 32 (occupation, cook), came to the out-patient department of the hospital Jan. 6, 1899. His family history was negative and previous history good. He denied any syphilitic infection, but admitted having had a urethritis some years previously. He had never had an attack similar in character to this. The present illness he dated from December 30, 1898, eight days before applying for relief at the hospital. The first symptoms seemed to have come on rather suddenly with a rigor of marked severity, followed by fever and, later, by profuse sweating. Almost immediately afterward he was seized with intense muscular pains, extending over the trunk and limbs; these pains were agonizing in character, increased on the slightest exertion, and had been present, with varying degrees of severity, until his admission. They prevented him from sleeping, and were spoken of by the patient as being not unlike rheumatism, *i.e.*, dull and aching, while he was in the recumbent posture, becoming intensely lancinating as soon as the slightest exercise was attempted. His appetite, which had previously been of the best, was absolutely lost and he had eaten nothing for three days. With the exception of some slight frequency of micturition and a slight cough with expectoration, there was nothing else of importance in the history of the illness.

Examination: The patient is rather a large, well-formed man, the mucous membranes of good color, tongue moist, and with a slight white fur. The eyes are markedly injected, the eyelids slightly but distinctly œdematous, and an erythematous area above the swelling. Negative results were obtained everywhere on auscultation and percussion, except at the bases of both lungs behind, where a few moist rales were made out. The heart sounds were quite clear. The liver and spleen were not palpable; the abdomen was soft and natural in appearance, negative results being obtained on palpation. No rose spots were seen. There was no superficial glandular enlargement. Pulse was 100, respiration 24 to the minute. The temperature ranged in the vicinity of 103° for three weeks and then gradually subsided. The urine was normal in color, acid, sp. gr. 1026. Microscopically, it showed pus-corpuscles in considerable quantity, epithelial cells, and a few mucous cylinders.

1 What important information might be gained by testing the knee-jerks in this case?

2. Commonest causes (*a*) of absent knee-jerk? (*b*) of increased knee-jerk?

a) tabes
anterior poliomyelitis
neuritis
complete section of cord
deep coma / Pressure T.B.

b) Cerebral lesion (hemiplegia)
tumor (occas. any organic brain lesion)
trans. myelitis
lateral sclerosis

eosinophilia would give diagnosis.

In absence of eosinophilia —
neuritis would account for all signs.

Important signs are —
acute onset —
widespread muscular pain - (severe)
prolonged fever —
oedema of eyelids —
Eosinophilia —

pain may be absent —

Stained spec. should be taken in every doubtful case of fever.

Knee jerks —
in neuritis — viral: stage — no knee jerk
paral. stage — knee jerk absent —

Lively knee jerks: neurasthenia - hysteria.
(not true knee jerk increase)
is important in judging intenseness of pain complained of.

3. What infectious diseases cause severe pains in the trunk and limbs?

4. What further examinations would throw light upon your preliminary diagnosis here?
5. Diagnosis? Prognosis? Treatment?

Recovery from trichiniasis takes months — relapses may occur.

mortality: 10%

3. Infec. diseases are commonest causes of pain in limbs – most marked in:

influenza. } commonest
tonsillitis – ("pain in bones")

dengue } less common.
small pox
yellow fever
Trichiniasis

apoplectic type - means nothing.

The patient is a contractor of 50. He is of heavy build, stout and red in the face. For several years he has had violent cough in the winter, accompanied by vomiting. A daughter of 16 some years ago ran off with a man and got married. He took to his bed, cursed, cried, called for his pistols and was going to kill the husband, but calmed down soon and the young people were sent for. His physician thinks he does not use alcohol in notable excess. Two weeks ago he began to complain of tearing and cutting pains in his legs, accompanied by slight œdema, and for several days now he has been in his bed. Fever has been absent. There has been some vomiting, not specially characteristic in any way. He has been much excited and has threatened to kill all Democrats. Sleep has been poor. The pains in the legs have continued, but less severely since he took to bed.

The pulse is 80, regular, the tongue heavily coated, thorax negative. The edge of the liver can be felt two inches below the costal border, apparently smooth of surface. Motion and tactile sensibility in the legs seem normal, but the leg muscles are tender and the knee-jerks are very slight, even on reënforcement. The urine report is negative.

1. What important facts about his early history do we need to know?
   History of alcohol - or evidence of syphilis
2. Why is his sleep poor?
   Sleeplessness nearly always due - when obvious cause
3. Why is the liver smooth?
   absent - due to alcohol usually
   Probably fatty in men.

4. What is meant by reënforcement of knee-jerks?
   distraction of attention.

5. How is the œdema of the legs to be accounted for? the neuritis
6. Diagnosis? Prognosis? Treatment?

Diagnosis:
alcoholism affecting brain
alcoholic gastritis
alcoholic neuritis
alcoholic liver (prob. fatty)

against Tabes

Kind of pain - would account for pain

local tenderness - (syphilis 2d: might cause pain or neuritis)

Liver: fatty or cirrhotic

In favor of fatty - absence of ascites

enlargement.

fact that he got well.

cause of oedema - perhaps due to trophic ch. but neuritis commonly does - or at least sometimes does.

Oedema of legs is never due to liver disease when no ascites.

Prognosis:

~~incurable part~~

not decided yet by pathologists if fatty liver a disease - said to be simple accum. of fat as in omentum -

may be beginning of chr. alcohol insanity at this stage impossible to say.

Treatment:

remove cause (alcohol).

for sleeplessness: Sulphonal gr XXX (3° before retiring)

or better - chloral hydrate gr XXX

for Gastritis: Tr Gent. Comp. 1 teasp - just before (meals

or { Tr Capsici ʒi
Tr Nucis Vom ʒii ...
Tr Gent Comp ℥iii

one teasp.

A female domestic, 29 years old, single, lost her father, a dissipated man, from phthisis. She herself was chlorotic five years ago, but has been otherwise well. A year ago she took a severe cold, and after a few days felt a sudden intense pain in the left lower axilla. Cough followed, with little or no sputa. She was not long laid up but has been short of breath on exertion ever since. She denies persistent cough, and states that it is present only when she takes cold; expectoration at these times is scanty, but has several times been blood-streaked. She thinks she has lost no flesh and has not been feverish. She has been and is now steadily at work. Her employer sends her to be looked at while the physician is visiting a member of the family.

The general appearance is that of health; pulse and temperature normal. She complains only of dyspnœa on exertion, dry cough, and anorexia. The chest is symmetrical; the interspaces are well defined; no cardiac impulse is visible; the left chest dilates less than the right. The heart sounds are loudest, and the impulse best felt just below the ensiform cartilage; the sounds are normal. The cardiac dulness seems to extend farther than usual to the right of the sternum. The right chest is hyper-resonant throughout, with puerile respiration. The left chest, including the cardiac area, is tympanitic with very feeble respiration and absence of vocal fremitus. In the left lower axilla there is faint, amphoric breathing.

1. What pulmonary diseases cause pain?
(pneumonia: pleurisy: pneumothorax: miliary disease:
2. Significance of bloody sputa?

3. What do you infer from the fact that this patient has not felt sick enough to disable her from work and has the appearance of health?

4. Under what conditions is the cardiac impulse absent?

5. In what diseases may cardiac dulness extend more than 2 c.m. beyond the right sternal margin?

6. Significance of puerile respiration?
7. What changes in the blood and urine do you expect in this case?

8. Diagnosis? Prognosis? Treatment?

Diagnosis: Pneumothorax (chronic)
Prognosis: if the lung from T.B. will kill from pneumothorax —
= prognosis of incipient T.B. is good
& proper cure (90% recover)
But T.B. is notoriously liable to relapse
on bad. Has a life long fight.

Physical signs are those of pneumothorax – a serious complication – while history does not suggest it. – in such cases be guided by signs –

absence of nerve symptoms –
might be explained by depression into adhesions.

Great dangers:
1) collapse & embarrassment of circulation & respiration
2) chronic sepsis – empyema.

"succussion": means splashing – is not a sign but a method of diagnosis.

Bloody sputum
often comes from throat –

3. What infectious diseases cause severe pains in the trunk and limbs?

4. What further examinations would throw light upon your preliminary diagnosis here?
5. Diagnosis? Prognosis? Treatment?

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influenza. } commonest
tonsillitis – ("pain in bones") }

dengue } less common.
small pox }
yellow fever }
Trichiniasis }

A factory overseer of 63 had long been subject to constipation, and for two years had had right inguinal hernia. Otherwise his previous history was excellent. On the day before his illness he had what he regarded as a satisfactory movement of the bowels. That night he ate heartily of clam-chowder and strawberries. The next afternoon he felt some abdominal discomfort. Later, while taking a bath, he found his hernia was down (as he had taken the truss off), and he found more difficulty than usual in replacing it. That night he vomited many times, the first vomitus suggesting strawberries, and had great abdominal pain, not localized. When seen next morning at 4 A.M., he was not collapsed. The tongue was moist, with a slight white coat. Temperature 98.4°, pulse 60, respiration 14. The abdomen was soft, not tender. The hernia was found to be perfectly reduced. Nothing abnormal was felt per anum. The pain required an injection of morphia, gr. ½. Nausea was so troublesome that the patient refused even bits of ice. Nothing whatever passed the bowels. On the second day the vomiting became stercoraceous. On the third day the vomiting persisted. Temperature 98.5°, pulse 68. Large enemata (5½ quarts) had been given without apparent benefit. The belly was distended, rather hard, not tender. In the right side an ill-defined resistance was felt, corresponding to the ascending colon.

1. What cause can you suggest for the slow respiration in this case?
   morphia
2. How does the temperature record help us here?
3. Causes of pyrexia and of subnormal temperature:

4. Is the combination of clam chowder and strawberries a particularly indigestible mixture? What is its probable relation to this case?
   no such thing as indigestible mixtures
5. Causes of stercoraceous vomiting?
   always means obstruction
6. What can be inferred from the results of the enemata in this case?
7. Significance of the tongue in disease? in this case?
8. Diagnosis? Prognosis? Treatment?
   Cancer more common more favourable than in colon

Prognosis:
Carcinoma of intestine is rare above
in these cases cancer is curable - if diagnosis
reasonably early.
may get cure by removing growth which has
existed 1 year

Popular diagnoses

Hernia reduced en bloc	20
acute intestinal obstruction	18
Cancer of bowel (lower)	6
Fecal impaction	6
Gastro-enteritis	3
volvulus	2
Scattering	3

reduction en bloc.
patients visit for perfect reduction. }
in bloc requires much taxis } against—
abdomen 24° after soft-not tender } also no mass
this - may be no mass en bloc.

ac. intestinal obstruction.
causes - strangulated hernia }
cancer } = 90%
bands + adhesions } (dependence also stricture (syphilitic) "
volvulus - fecal impaction
intussusception (in rectum - common
mesenteric thrombosis but causing obstruc
impacted gall stones. is most rare)

bands + adhesions -
fr. peritonitis - or operation
gen. below middle age.

*Cancer -
safe to say any case of obstruction past 50
not strangulated hernia - is cancer -
acute obstruc. from cancer - caused by g.i. upset
- griping causes shutting down.

volvulus -
a rare cause.

Gastro-enteritis -
never causes stercoraceous vomiting

diagnosis: carcinoma - ascending colon } mass
(hepatic flexure) } 5½ mm.

seldom forget to suspect cancer in any case
past 50. even in absence of previous indication

nonop. treatment - atropine 1/20.

J. S., aged 40 years, a merchant, was seen in consultation April 8 at 10 P.M.

He had suffered for years with indigestion, and had lost considerably in weight. For several months he had been treated by an eminent specialist in diseases of the stomach. His stomach had been washed out for three weeks. He had been on a liquid diet. He had made no improvement and for one week had remained in bed on account of an aggravation of epigastric pain. At one o'clock on the 8th of April he got out of bed and went to the back door to look out. While there he was seized with sudden severe pain in the abdomen. He vomited and crawled back to bed. His attending physician saw him at 3 P.M. He found his pulse 90, temperature 101°, abdomen of board-like rigidity, tender everywhere, but much more tender in the epigastrium. He did not show much shock. His physician administered ¼ grain of morphine and saw him again at 9 P.M. He was then somewhat improved, and his spasm was a little less. The consultant saw him at 11 P.M., and found him pale, sick-looking, with no peritoneal facies and no marked shock. There was distinct spasm and tenderness in the epigastrium, shading off into other regions of the abdomen, which was generally retracted. There was no dulness. The tongue was moist. Pulse 90, temperature 101.4°.

1. What is the significance of the peritoneal facies and why was it absent in this case?

2. In what diseases is the use of the stomach tube contraindicated?

3. What further data might be of value in diagnosis here?

4. How can we exclude plumbism?

   Tabes dorsalis?

   Malaria?

5. Diagnosis? Prognosis? Treatment?

...mmon causes of bronchial breathing in order
pneumonia
T. B.
Compression from any cause

A paper hanger, 45 years old, is seen May 17. His history obtained from the attending physician, who made his first call May 3, was as follows: The patient uses alcohol in moderation, and has had no previous illness. April 27 he had a chill followed by sharp pain in the lower right chest, some cough with bloody expectoration, and shortness of breath. He has been in bed ever since. On May 3 the right chest was dull below the fourth rib in front and below mid-scapula behind, with broncho-vesicular respiration, increased voice and vocal fremitus. The cardiac apex was in the fifth space just outside the nipple line. No murmurs. The second pulmonic sound was accentuated. The temperature ran between 101° and 102.5° until the morning of May 8, when it fell to 99°. Since then it has been irregular, varying between 100° and 102°. The respirations were 35 until the 8th, when they fell to 28, where they have since remained. The pulse has varied between 100 and 110. Urine negative. The patient has lost strength and weight. The signs in the lungs have gradually changed; now the right chest seems fuller than the left and moves but little with respiration. It is flat throughout on percussion, with diminished vocal resonance and fremitus. Respiration is bronchial down to the fifth rib in front, growing gradually feebler below that point until it is lost toward the base. Feeble bronchial respiration is heard over the back, with numerous medium moist rales at the angle of scapula. The heart remains as before. The smooth edge of the liver is felt two inches below the costal margin. White cells 28,000. A needle was introduced on the 14th in the eighth interspace in the posterior axillary line, and again to-day an inch or two farther back. It appeared to enter a solid body, and only a drop or two of blood was obtained.

1. In what diseases is bronchial breathing to be heard? Bronchitis + Emphysema, Pneumonia – T.B. – Empyema – Atelectasis [illegible]
2. Why is the pulmonic second sound accentuated here? [illegible]

3. Is the eighth interspace a safe place to tap in a case like this?

Peric. effusion – may cause atelectatic patch [illegible]

4. Diagnosis? Prognosis? Treatment?

Diagnosis – Post-pneumonic empyema.

Apex of heart – kept in axilla [illegible] in the left side – [illegible] on the right.

Prognosis: of pneumonic empyema is good

rales even [illegible] shows not [illegible] tapping when other signs point to pus.
Tap should be just below angle of scapula.

Tuberculosis in adult rarely starts at the base although it often does in childhood.

ordinary belief is that the tough adhesions at autopsies are rarely from pneumonia — these are usually friable and easily broken up.

In the 8th space it is possible to tap thru the diaphragm — espec. if liver is enlarged.

Malig. disease in lung — gen begins at the root of the lung or in the pleura. If needle goes into a solid mass at base it is not malignant. Malig. is diffuse or in mass at the root of the lung.

unresolved pneumonia is a very rare disease most of cases that used to be called unresolved pneumonia are empyema.

This picture never belongs to unresolved pneumonia (symptoms are latent) —

Diagn. in this case lies — empyema
T. B.
malig disease —

Pus high up — but not obtained lower down may be due to encapsulated empyema
or interlobar "

To find interlobar fissure: put patients arm up over shoulder and tap along vertebral border of scapula

Thickened pleura: may give dullness — but not flatness

note — breathing is often heard over fluid — espec empyema — & very often in children loud bronchial breathing is heard under such fluid

A clergyman, 60 years old, gave the following account of his case. Since he began to preach he has been subject to insomnia, but it is under his control unless he is excited by mental labor, the effects of which are most marked when it occupies the evening. Eyes weak for forty years, but no worse of late. Though the voice is clear, its use in lecturing or preaching is at times, when he is debilitated, somewhat painful and requires much exertion. Appetite good, but two to three hours after eating he sometimes has a kind of epigastric pain or feeling of heat, not dependent on amount or character of food, unless it be worse when he eats little. Ice water seems to touch a raw spot. Bowels tend to constipation since early childhood. For many years has been troubled, especially when he is debilitated, by a sensation over the whole body as if pricked by innumerable needles.

Four years ago, while much exhausted by mental labor, went to a watering place, where he was put on low diet, reducing remedies, and frequent baths. At the end of four months, while at breakfast, was attacked with vertigo and began to talk with great volubility but incoherently. For three days, which were a blank to him, his condition excited much alarm, but at the end of that time his mind became clear and there has been no return of symptoms since. There was numbness of the hands and feet at time of the attack.

In the two last years has had five attacks of pain in upper abdomen, without known cause, very severe and accompanied by distention and general perspiration. One of these came on after conducting an examination four hours long, another after eating hastily. Otherwise no cause known. Pain generally began at 9 P.M., and lasted till midnight. No other symptoms noticed before, during, or after the attack of pain.

1. For what should one search especially in making a physical examination of this patient?
2. What gastric anomaly do the digestive symptoms suggest?
3. If his gastric symptoms had appeared for the first time within a year what diagnoses should be considered?
4. Name the most important causes of paroxysmal epigastric pain.
5. Diagnosis? Prognosis? Treatment?

Diagnosis – neurasthenia.
Prognosis – old to touch new tracks [illegible] probably be essentially neurasthenic as long as he lives.
Treatment – may send abroad – explain this condition to him
Diet – full (milk + eggs)
cut out condiments. If hyperacidity –
reduce meat
feed between meals
Crackers + milk
cocoa.

- more attacks of pain at night than other times in gall stones + peptic ulcer.

Digestive symptoms caused by gall stones
vomiting - (pain)
+ lesser symptoms - distress + vomiting } vagal reflex.

In majority of cases of gall stones we get - no physical signs - gall bladder or jaundice. + must make diagn. in history.

arteriosclerosis - may cause pain in the abdom - form referred angina. art-scler. pain usually confined to extremities.

signs art. scler: palpate arteries
polyuria
occasionally arrhythmia
increased blood pressure -

no evidence of arteriosclerosis in this case - physical exam. for tabes negative also.

a no of conditions in neurasthenia give pain + distension in abdom -

Pyloric spasm
swallowing air etc.

The attacks 4 yrs ago - may also be explained in terms of neurasthenia - "detrusion of intestines" brought on by some diet - essentially cerebral anaemia

note: may have coronary + cerebral sclerosis without signs of arteriosclerosis in the peripheral arteries.

A manufacturer, of 54, of good inheritance and habits, is seen in October, 1898. In childhood he was laid up for a time with what he thinks was rheumatism, and he has since had pains now and then, not laying him up, attributed by him to rheumatism. He has been a very active man and has ridden a wheel. Ten years ago he fell on the ice while skating, striking the back of his head. He was unconscious for a week, and in bed eleven weeks, but full recovery followed. For the past year he has been less well and strong. Last winter he went to Bermuda, gaining in every way and thirteen pounds in weight. Five weeks ago he drove a pair of pulling horses over forty miles. The next day he had severe pain in his arms, and this has since been his main complaint. The pain extends from the shoulders to the wrists, is worse at night, and often requires morphia to secure sleep. Pain and a burning sensation in the fingers comes on suddenly at times, waxes and wanes. He has kept the bed for about four weeks, sending for his doctor first three weeks ago. He has lost some flesh. The bowels are constipated. Of late there has been some general abdominal colicky pain not attributable to laxatives. Fever has been absent. There is no cough or præcordial pain; he lies indifferently on either side, with the head low. He is rather pale, with slight icteric hue of the conjunctivæ. The pulse is and has been regular, of fair strength and rather low tension, 96. The tongue is clear and moist, the gums and teeth in good condition.

Tactile sensibility is perfect. There is weakness in the arms and hands, especially in the extensor muscles. This weakness has increased notably in the past week. He can button his undershirt and pick up a pin from a smooth surface, though with difficulty. There is no distortion of the finger joints.

The cardiac impulse is in the fifth space one inch to the left of the mammary line. Percussion corresponds with palpation and shows slight extension of dulness on the right of the sternum. In both the mitral and aortic areas soft systolic murmurs are to be heard, one transmitted into the axilla, the other into the neck. The second sounds are clear, the pulmonic sound slightly accentuated. Visceral examination is otherwise negative. Œdema is absent. The knee-jerks are obtained, though with difficulty. The urine, 44 ounces in 24 hours, contains neither sugar nor albumen. The blood is normal.

1. What diseases are most often diagnosed as "rheumatism?"

absence of interval - blue line and onset of unconsc- is against meningeal hae.
Condition prob. concussion - & completely recov. from.

Lead line may persist 3 mo - 1 yr + } after stopping
Stippling disappears promptly } intake of lead

Chronic anterior poliomyelitis ?
both flexors & extensors paral. flexors most.
twitchings of muscles comm.
alcoholic neuritis - ?
much more apt to affect the lower arms
tenderness along the course of nerves marked.
extensors not usually more affected than
flexors.
arsenic poisoning ?
oedema of eyelids
respiratory signs.
pain a prominent symptom in arsen. neuritis
cutaneous sensations markedly affected.
Blue line on gums may be due to
lead - silver - copper.

other facts in case { normoblasts
Blood - secondary anaemia | stippling
urine - contained lead.
feces - lead more constantly found in
stools.

tremor more char of lead
twitching " " " ant. p. myelitis.

Neuroplegic ~~of the base~~ → neck = ~~~~ litis
initial area → axilla = Pel. ~~~~ injury

2. What connection can be traced between the fall and coma of ten years ago and the present symptoms?
3. (*a*) Common causes of muscular weakness? (*b*) Of muscular paralysis?

4. (*a*) What information might be obtained by testing the power of the supinator longus here? (*b*) Describe the test.

Leads spares the supinator longus extensor ulnaris muscles } upper late

5. What relations are there between joint troubles and diseases or anomalies of the nervous system?

6. What connection might exist between the cardiac and the peripheral symptoms?

7. Diagnosis? Prognosis? Treatment?

Prognosis: depends on duration & on degree of process as shown by electrical tests.

acute cases: short duration: good

Chr. cases: impairment likely to persist.

Treatment:

cut out lead.

KI. gr V t.i.d. 6 mo to yr.

promote excretion of bowels.

might try Chlorazene - gel baris - or compd licorice powder as a laxative & for sulphur to combine c lead & prevent reabsorption.

Treat. paralysis c massage

passive motion

~~[illegible]~~ Electric.

active motion

Mrs. J., 65, an active, spare, energetic woman. Always well. For two years has noticed some dyspnœa on exertion. Two weeks ago had an attack of dyspepsia with dizziness. This evening she ate a hearty supper of chopped codfish and potatoes warmed up in pork fat. Immediately afterwards she started out for a walk. After walking about a quarter of a mile she noticed dyspnœa, which rapidly increased to great distress. On reaching a friend's house she had barely strength to enter.

When seen twenty-five minutes later, the patient was sitting up propped by pillows. Respiration was from 30–40 times per minute, and accompanied by a loud rattle in the throat. The larynx moved violently up and down. No pain anywhere. The face was drawn and blue, nose pinched, hands and fingers purple, skin cold and clammy. The carotids were throbbing strongly, the heart beating tempestuously —140 times per minute. The lungs were full of coarse, medium, and fine rales up to the second rib on each side. Owing to the noisy breathing no definite information could be obtained regarding the cardiac valves.

1. Significance of the rattle in the throat?

profound weakness — pat. can't get up expectoration.

2. Significance (*a*) of throbbing carotids; (*b*) of other cervical pulsations?

3. What further data should be obtained at once? urine

the type of oedema of lungs is uraemic

4. How is the prognosis influenced by the mode of onset here?

condition strongly predisposes for — conditions aortic aneurysm. = better prognosis.

5. Evidence against pneumonia here? onset not like pneumonia

pain & nausea absent. absence of temperature.

6. Diagnosis? Prognosis? Treatment?

Prognosis —

pat. should live years c proper treatment.

prob. recover from this condition in few days.

Treatment — two ways —

1) move bowels — give in much fluid

2) remove fluid — give once.

when fails — calomel next choice.

reading [illegible] (mors.) in cardiac [illegible] [illegible] bleeding & morph.

, is slow — nitro glycerine [illegible]

oedema of the lungs
(in the absence of mitral disease or acute dilatation c relative insufficiency of mitral)
There are cases of acute oedema of lungs of unknown origin (so called angio-neurotic oedema)

oedema of lungs secondary to mitral vegetation has long slow recovery. acute oedema may end as abruptly as it began.

How to distinguish from asthma?
would not get rattle in the throat
no moist sounds
condition of periph. circ. in asthma is good.

What is cardiac asthma?
generally some moist râles at the bases
(no sharp line separating from this condition)

Note: the com. assoc. of exertion after eating in bringing on all symptoms in weak heart.

significance of throbbing carotids
low blood pressure - anaemia - aortic open or forcibly acting heart
(may be due to nervousness)
of other cervical pulsations - may be.
venous pulsation
thyroid
aneurysm
cervical rib c subclavian vein over it
} lungs in wh. pulsa

Treatment -
first thing to do is to bleed her - this is just the case to bleed. take a pint.
If great dyspnoea without oedema - would give morphia - but in this condition bleeding better.
then - purge - salines - diuretics -
diuretin gr xv ev. 4 hrs (if assoc. work give gr xxx) ʒ
• purge c Epsom salts - ʒi ev. a.m. in black coffee ev. day for 1 or 2 days. after these things try

Tabes: Gastric Crises

A middle-aged man was seen writhing in intense pain referred to the epigastrium. Vomiting of greenish fluid took place; there were loose discharges from the bowels, small in amount. This state of things lasted, with only short remissions, for two days, until a small dose of morphia (which, for special reasons had been hitherto withheld, though asked for) was administered, after which there was complete relief for many days. The pupils were dilated, the pulse regular and of normal character. Nothing special had been eaten or drunk to cause irritation of the stomach. The abdominal walls were neither distended nor retracted, no intra-abdominal tumor was detected, nor was there excessive tenderness on pressure. It was afterwards learned that he had had several such attacks, that for many months or years his legs had been weak, that he had had neuralgia and numbness in them.

1. What further examinations should be made?

2. If you had seen such a case for the first time, what treatment of the acute symptoms should you advise?

3. Significance of the vomiting of greenish fluid?
violent vomiting from any cause.

4. Diagnosis? Prognosis? Treatment?

Prognosis: ordinarily death but:
not more than 1/3 of cases of tabes ever become ataxic
may live for 15-20 years.
Course: no symptom in tabes which may not disappear
(but signs remain)
may come to a standstill.

Treatment:
For lightening pains: put patient to bed?
warm bath } should always be tried
cool sponge } before giving anything by mouth —
(rest & Rest - Cheyne)
drugs: phenacetin gr X.
acetanilid gr ii - v
aspirin gr v may repeat in 1 h
[illegible] gr 1/12 4-5 times daily
(Hutchinson)

causes of intense epigastric pain
perforating gastric ulcer
gall stones
*gastric crises in tabes
pancreatitis
angina

nothing new about angina - an attempt is heard to make a diagnosis which is a possible one in this case. (not to operate)

angina?
lasts too long
man doesn't smith in angina

test - b.p. in suspected cases of angina

Gallstones?
Pain doesn't last two days.
Lead colic?
doesn't have diarrhea - bowels regular or constipation. lead colic a dry "belly ache" - desire for pressure - do in ulcer. gallstones things which don't bear pressure are the perfor. ulcers - any form of localized appendicitis = abhorrence of
morphinism?
fact that small dose gave relief -
pain com. caused by prolonged use morphine in stopping morphine patient complains most of 1) sleeplessness 2) pain.
Tabes & knee jerk - 1) Early - achilles jerk present
2) rare forms - involving upper segments.

Further examination -
History of syphilis
Difficulty in starting or stopping micturition -
Wassermann reaction.

Treatment cont'd.
exercises for the ataxia - if there is any.
(walking the plank -> chalk line)
nothing - wash out stom. if persists - otherwise do nothing -
Tabetic crises self limited + little affected by treatm.

A married woman, aged 27, is seen June 7. Both parents died of consumption. She has always been well except for an attack of rheumatic fever three years ago. Has had four healthy children, the youngest six months old. Her oldest child was taken with convulsions on the night of June 2 and died twelve hours later. After his death she seemed dazed and became delirious, but had intervals of apparent consciousness up to 6 P.M., when she complained of pain in the back of her neck and began to vomit. Vomiting was frequent and persistent until the following evening. She has remained unconscious since the evening of the 3d. Yesterday morning her hands and feet appeared swollen and inflamed. Her temperature has varied between 101° and 102.5° and has been irregular. Her pulse is 120, respirations 30. She is delirious, and does not appear to realize her surroundings. Both knee and ankles, the back of the left hand and the metacarpo-phalangeal joint of the right index finger are red, swollen, and tender. There is redness over both patellæ. The muscles of the calves and thighs are tender. The neck is somewhat stiff, the pupils dilated, and there is divergent strabismus. The knee-jerks are not obtained. Except for a few moist rales at the bases of the lungs physical examination otherwise negative. The white cells number 29,400. Urine, sp. gr. 1030, acid, albumen very slight trace, sugar a trace. Sediment contains occasional hyaline and fine granular casts and a rare abnormal blood globule. The amount is 500 c.c.

1. What changes might be revealed by ophthalmoscopic examination?

2. Discuss the urinary anomalies in this case?

3. What are the most important types and causes of arthritis?
4. Name three causes of strabismus?
5. What tests would simplify the diagnosis?
6. How is the vomiting to be explained in this case?

7. Diagnosis? Prognosis? Treatment?

Kind of meningitis?
Todd in case do not indicate kind.
Lumbar puncture would tell.
p.n. e =

Diagnosis: appendicitis – + gen. perf. peritonitis. also lead poisoning

CASE 21

A painter, 23 years old. Family history negative. General health always good. Clap eight months ago, a slight mucopurulent discharge still persisting. Seven months ago had an attack of colic, lasting three or four days, similar to his present trouble, but less severe. Bowels move once daily without medicine. Seven days ago began to have cramps which have grown rapidly worse since and have been only partially relieved by large doses of morphia and atropine. The abdomen at first was generally tender, especially just to the right of the navel. The bowels have been constipated from the start, in spite of repeated doses of salts and enemata. Very little gas passes per rectum. Has vomited three times, the vomitus containing nothing of note.

Physical examination shows a poorly nourished man, suffering acutely from general colicky pains in abdomen. Expression pinched, anxious. No jaundice. Faint blue line on gums. Radial arteries slightly thickened. Heart and lungs normal. Abdomen distended, and tympanitic. Between the attacks of pain no marked tenderness is elicited even on fairly deep pressure. The distended, moving coils of intestine are visible through the thin walls, which are somewhat rigid everywhere. The finger high up in rectum strikes a tender point a little to the right of the median line. The pulse is small, 120, and has been steadily rising. The temperature, taken only during the past five days, has never gone above 99°. Urine scanty, high colored, acid, sp. gr. 1026. No sugar, no albumen. Sediment negative. Leucocytes five days ago 35,000, now 19,000.

1. Common causes of oliguria? (scanty urine)
   fever. vegetable diet. g.i. trouble. Blocking one ureter = reflex stopping of secr. of other. hysteria. (may be absolute anuria for days)
2. How does the temperature record influence our diagnosis here?
   when pulse + P.M.C. signif. disregard temperature
3. Significance of the leucocytosis here present?
   rules out uncomplic. lead poisoning
4. Have the thickened radials any connection with the other symptoms of this case? lead.
5. What organs and tissues are injured in plumbism?
   nervous p. nerves; muscles; blood vessels; lead encephalopathy; amaurosis, coma, headache } [illegible]; Blood: gran cells are young – slow marrow [illegible]; intestines – vascular crisis sim. to vasc. crisis in tabes.
6. Diagnosis? Prognosis? Treatment?

Prognosis: 2:5 against: well in 2 mo. if recovery
Treatment: [illegible] washing stom. | waiting for peritonitis to localize [illegible] 3-4 four days [illegible]

help. Diagnosis –
Lead poisoning
" " + something else.

against lead poisoning alone.
leucocytosis (impossible in lead alone)
rising pulse
(pulse usually slow in lead.)

appendicitis
Perityphlitis
Complic. gonorrhoea. (perityphlitic abscess)

against appendicitis –
abscess is localized injury and tenderness.
squinting of intestines – due in this case to
walls and evacuate – (probably)
Perityphlitic abscess –
would cause leucocytosis –
will not likely to cause gen abdom symptoms
(but these might be due adhesions to walls &c.
&c. abdom. conditions always to be considered.
appendix.
gall bladder.
abscess –
Perforating ulcer –
ac. Bac. infec. of kidney.

obstruction – squinting evils
leucocytosis
but com. cause in man – operation – absent.
Perfor. Peritonitis –
temp not imp.
rising pulse & enough!

A lawyer, aged 68, has always worked hard, and for the past three years had great anxieties and no vacation. He had typhoid fever twenty years ago and obstinate sciatica two years ago, since which time he thinks he has lost weight. He smokes a good deal and drinks wine in moderation. He now complains of dyspepsia (without vomiting), constipation, dyspnœa, impaired vision, and pain in the right shoulder. For at least ten years he has looked pale. Now he looks very pale, and sallow. The tongue is clean, the pulse soft and regular. At the apex, which is in the fifth space in the nipple line, there is a faint systolic murmur, transmitted a short distance to the left. The pulmonic second sound is accented. No enlargement to the right. At the base of the lungs, posteriorly, moist rales are heard on full inspiration. The liver is not enlarged. There is moderate tenderness in the left epigastrium. On bimanual examination, a rounded mass can be felt, moving with respiration, about three inches below the right costal border.

The urine contains about $\frac{1}{10}$ per cent albumen and a few hyaline and granular casts, some of which display a little fat and crystals of uric acid. The total amount in twenty-four hours is one quart, with a specific gravity of 1015. The blood shows no leucocytosis. Red cells very much reduced in number. The painful shoulder presents no objective peculiarities.

1. Significance of rales?

2. What further information about the rounded mass is desirable?

3. What other portions of the examination are insufficiently described?

4. How do you interpret the presence of uric acid crystals in the urine?

5. Diagnosis? Prognosis? Treatment?

Man, 50 years old, a hard drinker, except during the past year. No family history obtained. For two or three years he has had pain after taking food, occasional vomiting and progressive loss of flesh and strength. For the past eight or ten weeks he has complained of frequent and severe pain of a "stretching" character in the right hypochondrium, without much tenderness there. For the last two weeks he has been deeply jaundiced. For a week he has been confined to bed and is emaciated and prostrated. His nights are disturbed by pain. The liver is greatly enlarged, hard, irregular, and nodulated, the lower edge reaching to the anterior spine of the ilium; it also extends to the left of the median line about two inches. It is slightly tender. There is little or no ascites. Pulse 92; temperature 98.5°. Urine rather scanty and very dark. No itching of skin.

1. What diseases can produce emaciation with jaundice?

2. Common causes of hepatic enlargement?

3. What importance would there have been in a good family history?

4. Diagnosis? Prognosis? Treatment?

A tall boy of 19 is brought to the physician's office by his mother, who states that for ten years he has had trouble with his head and with his bladder. Usually he has to pass water every two hours in the daytime. This summer while he was in the country the intervals were longer, three or four hours, and his headache did not trouble him, but since the autumn the headache has returned. It is in various parts of the head, and goes and comes.

The urine is sometimes turbid, but never hurts him during micturition. Masturbation was rather frequent six years ago, but has not been practised since, he says. His father's sister and his father's aunt died of "softening of the brain," and his mother is anxious about his mental condition. Appetite, digestion, and sleep good. Bowels regular.

Examination shows a rather shame-faced, neurotic boy, very tall for his age. Visceral examination is negative. Blood normal. Urine 1026, slightly high colored, very acid, no shreds. No albumen, no sugar.

1. **What are the bad effects of masturbation?**

2. **Common causes of frequent micturition in youth?**

3. **Diagnosis? Prognosis? Treatment?**

A lawyer of 47, of good family history, and previous health, had for many years complained of dyspepsia. He had been noticed to be losing flesh for three or four months and to have grown pale. Frequent headaches, weakness, and shortness of breath on exertion, have troubled him. An oculist whom he consulted referred him to his family physician, who found pallor, diminished eyesight, fulness of eyelids, increased pulsation in the neck, dyspnœa, and exaggerated heart action.

The apex was in the sixth interspace, mammary line. The heart-sounds were loud, and the valvular sounds at the base were accentuated; respiratory sounds at the base of the right chest behind were lessened, and numerous fine moist rales could be heard in lower portions and in the anterior margin of each lung. Abdomen negative. There was swelling of feet and ankles, and the patient stated that at times his hands seemed larger than usual. Urine 1011; pale. Albumen, a trace. Granular and hyaline casts, and fatty elements were found in considerable number. The patient also mentioned cough, with thin, frothy expectoration, and that of late micturition at night had annoyed him, and that the quantity of urine voided in twenty-four hours was increased.

Within three months there was gradual change for the worse, and after a day of considerable exposure he had a chill, severe headache and oliguria. He was found in bed unconscious, on the third day after the chill, and died on the following afternoon.

1. What was the condition in the lungs?
2. Causes of diminished respiration below the right scapula?

3. Causes of painless swelling of both hands?

4. Significance of frequent nocturnal micturition?

5. (*a*) Causes for accentuation of the aortic second sound?

6. Diagnosis? Prognosis? Treatment?

A boy, 14 years old, of gouty family history, complains for a year of frontal headache, not very severe but persistent and wearing. Appetite excellent, but digestion not as good as it has been. Has grown suddenly very irritable, having been previously sweet-tempered. He has lost flesh during the year and seems listless and weak. Sleeps well. Bowels somewhat costive. Getting pale. Heart, lungs, and abdomen negative. Knee-jerks not easily obtained, but gait shows only weakness. Urine normal color, acid, 1028, no albumen. Sediment negative. Temperature 98°, pulse 96. No œdema. Blood negative.

1. What possible causes for the change in disposition?

2. Causes of frontal headache commonest at fourteen?

3. Significance of pallor both in general and in this case?

4. Diagnosis? Prognosis? Treatment?

Young salesman, always well till present illness. Family history good. Worked hard last winter and worried. Frequent headaches, indigestion, insomnia. Feeling poorly for several weeks, especially at end of day, but has worked until week ago; since then, on sofa and in bed. Chief complaints, weakness and pain in left chest. Two chills this week; slight, dry cough; no nosebleed. Bowels constipated and appetite poor.

Physical examination: Fairly nourished, tongue coated, expression bright, no enlarged glands. Heart shows musical systolic murmur at apex, heard in axilla and back; action slightly irregular; no enlargement. Pulmonic second sound normal. Lungs negative, except over seat of pain in side, where was heard a harsh sound synchronous with respiration for a few breaths and then not heard again. Abdomen shows dulness in both flanks, which, however, shows but little shift with change of position. Liver dulness from sixth rib to rib-margin. The spleen is not palpable, splenic area tympanitic; knee-jerks lively. Temperature 99–102°, swinging up in the afternoon. Pulse 100–110. No sputa; urine negative.

Blood examination: Reds 3,200,000; whites 4000; Hb. 40%.

1. When a patient's chief complaint is weakness, what diagnoses should be considered?

2. Name five common causes of pain in the left axilla.

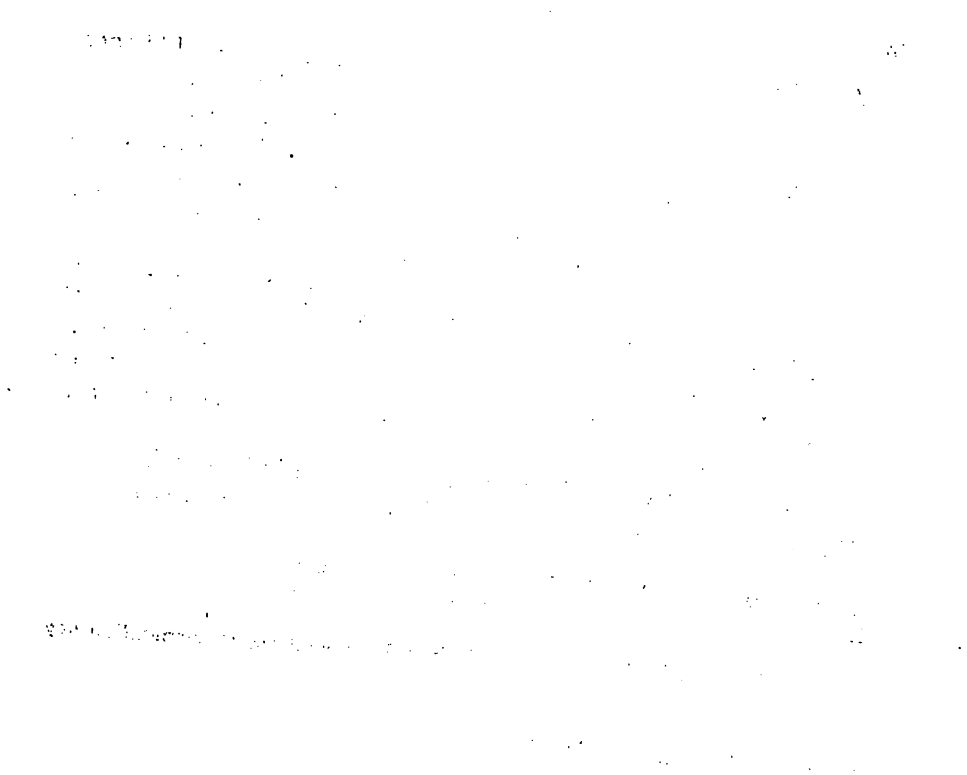
3. How should the cardiac murmur be interpreted in this case?

4. What adventitious thoracic sounds are most likely to be fugitive, as in this case?

5. Significance of the leucocyte count in this case?

6. General significance of normal or subnormal leucocyte counts?

7. Diagnosis? Prognosis? Treatment?



A broker of 26, moderately alcoholic, but with no venereal history. Has always been well. Been under a surgeon's care for last three days for "grippe" and taken whiskey and ammonol. On the third day, Saturday, he took two whiskies and went to ride. The horse shied and threw him. His head struck on a rock, just above and in front of the right parietal eminence. Coma for ten minutes; after being carried home he vomited and complained of pain in the occiput and numbness of the right hand. Temperature 104°, the pulse 90. Next morning it was 103°, next evening 103.8°. Monday it was 102°, pulse 85. The bowels have not moved. Patient has regained consciousness, but is still dazed. There is no evidence of fracture or suppuration anywhere, but there is numbness along the ulnar side of the right hand.

Seen Tuesday; very bright, sat up strongly in bed to shake hands. Laughed and talked, wants to get up, but temperature still 102°.

1. What are the objections to giving ammonol in this case?
2. What should you expect to find in this patient's urine?
3. What facts justify the statement: "There is no evidence of suppuration anywhere?"
4. Diagnosis? Prognosis? Treatment?

Patient a man 55 years old; rather fat; subject to frequent attacks of winter cough, with asthmatic tendency. For seven years the heart had been noticeably weak and irregular. Pulse 80; first sound valvular. Apex beat an inch and a half directly below left nipple; no murmurs. No previous rheumatism. Several years ago there was sudden and complete loss of memory, the same questions being repeated as soon as answered. The expression was at the time rather vacant; the pupils were equal and responded to light; there was no motor paralysis. The amnesia lasted all day, disappearing the following morning. The pulse remained 50 for two days. The patient had been previously very anæmic, and had had much fatigue and anxiety, with digestive disturbance. The urine always remained normal. In the following years there were occasional attacks of transient numbness in the left arm and leg, and sometimes faint turns with pallor and irregular, feeble pusle. Headache was a frequent symptom; dyspnœa on exertion, impaired appetite, and insomnia were constant. There was no apparent loss of flesh. In 1897 life was endangered for two weeks by œdema of both lungs, supervening on an attack of bronchitis. In the subsequent years the condition improved somewhat, so that the patient could walk half a mile or more and was able to attend to considerable business. In autumn of 1904, he had several attacks of bronchitis, and, finally, an attack of complete hemiplegia resulted fatally in twenty-four hours without recovery of consciousness. Respiration was of the Cheyne-Stokes type, and later stertorous.

1. Significance of stertorous respiration?

2. What is meant by an asthmatic tendency — *i.e.*, on what physical signs should such a diagnosis be based?

3. What are the relations of bronchitis and other pulmonary lesions to disease of the heart?

4. Diagnosis and Treatment?

Diagn: arteriosclerosis -
possible syphilitic background.

Treatm: Iodids KI gr v t.i.d.
no digitalis - not good for cerebral lesions - if
portable, raises arterial tension -

Sometimes cough from bronchitis may be at times paroxysmal - resembling asthma - expiratory spasm etc.

Cardiac signs of cardiac insufficiency
irregularity
shortening of 1st sound (valvular?)
mitral regurgitant murmur often.

Special thing we would like to know in past history - Syphilis?

Cause of sudden loss of memory -
might have sub. cortical sensory aphasia
general cerebral anaemia - or a local one.

Bronchitis c consequent emphysema might embarrass the right heart + account for cardiac features in case (but not the cerebral.

Stokes Adams disease?
Symptom - irreg. heart - decr. ventric. systole
Cerebral signs vertigo - nausea - hemiplegia
in this case venous tracing would be necessary to rule it out - tho localizing signs against.

Cerebral Syphilis?
would need Wassermann - therapeutic test - to rule it out in this case.

Cerebral Symptoms in arterio-sclerosis due to - spasm.
or narrowing (= anaemia)
or hae.

Treatment: "Good diet" restrict protein - cut out stimulants etc.
Rest is prime indic. (mm---- dimen

sign of T.B. (Pulmonary)
Perforation. air. wall stomach (no peritonitis)
adhesions to abdom. wall.

A. R., aged 50, was seen June 3. He had always been troubled with constipation, his bowels moving only once or twice a week. For five weeks he had had epigastric pain, which for three days had been severe. He had had no movement of the bowels, no chills or fever.

Physical examination showed a thin, worn-looking man. The pulse and temperature were normal, the tongue clean and moist. His chest showed diminished breathing throughout the left chest, broncho-vesicular respiration and dulness at the right apex, and numerous rales throughout this side. The abdomen was distended. There was dulness in the left hypochondrium, with marked tenderness and muscular spasm. Elsewhere there was tympany.

A high enema relieved him of large masses of scybalæ and made him more comfortable, but on June 10 there was still a tender mass in the left hypochondrium. Temperature 99.6°, pulse 90.

1. In what way and to what extent should the patient's age and the condition of his chest influence our decision as to an operation?

2. What is a high enema? How and with what materials should it be given?

3. Importance of the temperature and pulse here?

4. What other data should be known?

5. Diagnosis? Prognosis? Treatment?

Hist of T.B.

Epigastric pain.

to estimate severity ask -
- if keeps him awake at night
- makes him cry out
- keeps him from work.

to determine localization ask
- if ever jaundiced
- blood in vomitus - stools - or urine

Pleura in chest -
- pneumothorax changes here very little
- + " may change noticeably.

Signs at the right apex
- bronchio-vesicular respir } normal at
- some dulness } right apex.
- incr voice + whisper }

Pains which persist in any one place in the chest probably indicate exudation. -
The differentiating quality is not easy to distinguish always.

Irritation of sup & M. nerves by exudate in the ~~pleura~~ thorax may cause upper abdom pain — + in lat cutaneous N. involved may cause pain in this region - may have not only pain but muscular spasm and tenderness.

Mrs. A., a Jewess of 36, has been suffering for six months with pain in her left side. At the beginning of the period a small lump appeared in the left breast. It was pronounced cancer by a competent surgeon and immediate removal was advised, but in three days it had completely disappeared and has not been seen since. From that time to the present she has had pain of gradually increasing severity throughout the left side of her body and in the back of the head. When the attacks of pain come she feels flushed but looks pale (sometimes with red spots on the face), and has "electric feelings" in the chest which are somewhat relieved (as is the pain) by pressure with the hand.

The pain is most apt to come on at night and sometimes keeps her awake or checks speech. There is a constant sense of pressure at the root of the nose and a beating in the head.

Her appetite is poor and there is often "bloating" after meals. The bowels are costive and she is nervous.

In the past three months, since a vacation in the country, with a good deal of exercise, she has decidedly improved, and now has the pain not more than an hour or two a day. The day after a good night sweat (which she has occasionally) she feels much better. She thinks she has lost about six pounds in weight.

Physical examination (including blood and urine) is negative.

whip. neuasth. intox - lead
anaemic
+ neurasthenia

Treatment —
vasomotor
induce convulsion by cure

.B. Pulmonary & perhaps Enteric

A manufacturer, 35 years old, is seen May 28. His father and sister died of phthisis, otherwise the family history is negative. While never strong he has been able successfully to attend to a large and exacting business. Three years ago he suffered from æstivo-autumnal malaria. Since then he has been treated several times for malaria. Last December he began to feel run down, but kept at work until the latter part of March, when he went South to recuperate and remained there two weeks. His appetite and strength improved, but on his return, April 8, after an elaborate dinner, he complained of nausea and flatulency and felt feverish. He went to bed where he has since remained. He has vomited occasionally, and has had a half dozen loose movements a day, nearly black in color, probably the result of bismuth which he has taken frequently. During the last three days he has noticed a slight dry cough. The temperature chart shows a wave-like curve. Every nine or ten days the morning temperature is normal, where it remains for from one to four days. It then gradually rises for four or five days to 102° or 103°, and as gradually falls. The evening record follows the morning curve closely, but has rarely gone below 100°. The temperature is always higher at night, and often during the periods of morning apyrexia rises as high as 103°. He has lost greatly in strength and flesh.

Physical examination shows a man much emaciated and weak, Sensorium free. Both cheeks are slightly flushed. There is dulness over the left front down to the third rib and in the left supra-spinous region, with broncho-vesicular respiration, increased voice sounds, and numerous high-pitched, moist rales at the end of inspiration. The heart sounds are normal. The hard smooth edge of the spleen is felt two inches below the ribs. Liver is normal. Abdomen is distended, tympanitic, somewhat tender everywhere, but especially in right iliac fossa. Pulse 112, weak and thready. Respiration 24. Leucocytes 12,000. Widal is positive in dilution 1–60, but not higher. Blood culture shows no growth. Examination of the stools showed bacillus of tuberculosis, B. typhosus, B. colicommunis, streptococcus pyogenes, staphylococcus pyogenes albus. Urine 1018, acid, slight trace of albumen, a few hyaline and fine granular casts, amount 60 oz.

1. How can the lung signs be explained in view of the fact that there has been but three days' cough and no sputa?
Not usual but occas. Happens - cough absent for months.
2. Would further tests help the diagnosis? NO
3. How do you interpret the Widal reaction in this case? positive
4. Diagnosis? Prognosis? Treatment?

Diff. diagnosis - typhoid - T.B.
Prognosis - bad - rapid lung development.
if he has enteric T.B. prognosis hopeless.

Diarrhoea in persistent pulmonary T.B does not prove T.B of intestines.

Diagnosis of T.B. Enteritis is never more than a probability.

Cases of this type often mistaken for malaria.

Long fevers (over two wks)

95% { Sepsis, typhoid, T.B. } 5% { meningitis, subac. rheum. Leukaemia, Syphilis, Malig. disease }

in which malaria often runs two weeks.

arteriosclerosis

A married lady of 57, with a grown family of healthy children, began about three years ago to suffer from general headaches, during which she could understand and answer questions, though memory of what was asked and replied was lost. These headaches recurred irregularly, each attack lasting twenty-four hours or more. Two years ago her physician suspected myxœdema, and great improvement in all respects followed the taking of thyroid. The dosage was diminished and for some months back she has taken only two or three grains a day.

About one month ago headache, more constant and less severe than formerly, came on, and she failed in general health and strength without any definite symptoms other than the headache. Six days ago she began to get stupid and within twenty-four hours was in deep coma, in which she still remains. There is incontinence of urine. The bowels have not moved for several days. Two days ago the pulse, respiration, and temperature were all normal at 6 A.M. Between that hour and 9 A.M. the pulse rose to 110, respiration to 30, and temperature to 103°, remaining elevated ever since. Soon after the advent of coma the thyroid extract was increased to 15 grains three times a day. Until within twenty-four hours she has taken food fairly well. Pulse 130, regular, respiration 36, temperature 102.8°. Lies on back with flaccid, non-sensitive limbs; sides of face equal; pupils equal, moderately contracted, responding slightly to strong light stimulus; all other reflexes absent, except the plantar. The eye fundus is negative. Visceral examination is negative, except for dulness, bronchial respiration, and fine rales over the right lower back. The leucocytes are 23,000 per cu. mm.

1. What is the condition of the right lung?
2. If Babinski's reaction were present on one side, would your diagnosis be modified?
3. Significance of the mode of onset in this case? A gradual onset of coma is against cerebral hemorrhage or embolism.
4. What can be inferred from the absence of focal symptoms?
5. Diagnosis? Prognosis? Treatment?

Diff diagnosis:
meningitis
Cerebral syphilis
Brain tumor
Brain abscess
arteriosclerosis.

9 of 10 cases of coma from whatever cause have albumen & casts in the urine.
High b.p. does prove uraemia either.
Nothing wrong in brain.
normal heart in this case rules out chr. nephritis
meningitis - rare & stiff neck. Lumbar puncture would decide.
cerebral syphilis -
in favor slow grad onset -
absence of focal signs often -
headaches.
against family & health children.
arterio sclerosis -
nothing against it.

88 CASE 34

The patient is a married woman, age 34, large and fat in person. She has had two children and three miscarriages, the last six weeks ago. Otherwise she says her health has always been good, until within three or four months; has been in the habit of drinking beer freely, but has not been intemperate. For two weeks there has been pronounced jaundice, anorexia and bilious vomiting soon after eating; dizziness, flatulence, occasional diarrhœa with pain at epigastrium; slight œdema of feet and ankles. These symptoms have been increasing. There has been no headache and no hemorrhages or chills.

The tongue was clean, the pulse 80, temperature 97.8°. The heart and lungs were normal. The liver was much enlarged and smooth. The spleen was felt below the ribs. There was no ascites. The urine had a sp. gr. of 1017, was of a deep yellow color, and contained a trace of albumen and much bile; sediment normal. The blood was negative.

1. What forms of jaundice need not be considered in this case?

2. What can we infer from the smoothness of the liver surface?

3. In what types of hepatic enlargement is pain a prominent symptom?

4. What are the significant points in the past history?

5. Diagnosis? Prognosis? Treatment?

Essential Points in History (2 wks duration)
- obesity
- miscarriages
- Beer

Physical Exam.
- Jaundice
- Large smooth liver
- " spleen
- Negative factors

Diff. diagn.
- cirrhosis
- Syphilis
- Fatty Liver
- Gall Stones
- Catarrhal Jaundice -

Gall Stones: against - Large spleen
no history of colic (not abs. vs.)

Catarrhal Jaundice: against -
Enlarged liver possible but not likely
Enlarged spleen -

Fatty Liver: jaundice uncommon (1/10)
Com. form that c̄ phthisis
Pure fatty liver (not accomp. c̄ cirrhosis)
unaccomp. by spleen

Syphilis: may be spleen.
Smooth liver is rare in syphilis

Cirrhosis: Beer cirrhosis mostly fatty
so history not altogether characteristic
note: every obese person has oedema
of feet and ankles -
nothing definitely [illegible]

in these cases [illegible]
inappetite: fruit [illegible]

purpura —

Mrs. M., 30 years old, is seen in consultation October 10, 1905. She had her first baby five months ago, and following delivery a severe albuminuria (¼–½%) without any urinary abnormality in amount, specific gravity, or color. The attending physician found very scanty hyaline casts otherwise nothing pathological in the sediment. With rest in bed and exclusive milk diet the urine became normal in the course of five weeks, but after a return to ordinary diet albumen reappeared and she was again on milk diet for period of seven weeks. In neither of these attacks was there any œdema or any uræmic manifestation.

While convalescent from this trouble (but after solid food had been begun) the patient began eight days ago to have bleeding from the gums, from the rectum and subcutaneously. The spots under the skin were of various sizes, perhaps twenty in all, and occurred mostly on the arms and legs. The bleeding ceased in two days; it was not accompanied by subjective symptoms of any kind, and the patient feels now quite well though rather weak. She is still in bed.

She looks the picture of health. Her color is bright, there is no emaciation. There is a loud, harsh, systolic murmur audible all over the præcordia, but best heard in the third left interspace near the sternum. The pulmonic second sound is slightly louder than the aortic. The heart is not enlarged. The other viscera show nothing abnormal. The gums are entirely normal, as they have been throughout. A few "black and blue" spots still remain upon the extremities. The urine is 2½ pints in twenty-four hours. Sp. gr. 1030, no albumen, no sugar.

Blood: red cells 3,552,000, white cells 8000. Hemoglobin 55%. The stained film shows achromia and moderate poikilocytosis, but is otherwise normal. The temperature ranges between 97° and 99.4°. Twice in the last fortnight it has reached 100°.

1. Causes of albuminuria?

2. Causes of subcutaneous hemorrhage?

3. Causes of anæmia such as is here described?

4. Diagnosis? Prognosis? Treatment?

Essentials in History: (following chiefcomplaint)
inleim. albuminuria apparently related to c
no uraemic symptoms
Purpura -
Essentials in Physical:
systolic murmur functional.
moderate secondary anaemia
a little temperature
(note: this might be due to anaemia
or "bed fever" i.e. fever which goes down
as soon as pat. gets out of bed. Pat. in bed
5 mo likely to have little fever.)

Diff. diagnosis - Purpura c anaemia.
upgrade pernic. anaemia.
Malign. Endocarditis.
Chronic interstitial
(shrunken type which goes
without albumen)

note: malign endocarditis may last more
than 6 months - few diseases in which
pat. looks so well - but dies.
against malig. E. no chills - no leucocytosis -

Prognosis -
majority of cases dies - (in this case
milk diet + particular [illegible])
Simple purpura [illegible] [illegible] [illegible]

Dentist, 42 years old, always well until within four days, when, after a hard day's work, was taken with a chill, vomiting, and epigastric pain. Temperature 102°. Next day, 99.4°, but vomiting continued and was so exhausting that a morphia subcut. ¼ gr. was given. Pain not so severe as the night before, but considerable epigastric tenderness. Kept his bed. Temperature 101.4° in afternoon.

On the third day, the one previous to that on which I saw him, the vomiting was less persistent and temperature a little lower, but he felt very weak and faint, wanted no light or sound in his room, and desired to be left alone and not disturbed. Slight tenderness over the whole abdomen now developed, with perhaps a little more on the right iliac region. Bowels have been moved freely by cathartics each day. To-day, feels as if there was a mass in the rectum. Urine very scanty in the last three days. It was examined a week ago and found normal. There has been no œdema. Has been working very hard of late.

Examination: Tongue clean; temperature 99.2° at 5 P.M.; pulse 68, good strength. The patient is pale, and looks exhausted and in pain. Thorax negative. Slight general abdominal tenderness, not localized, but slightly greater in the epigastrium. Rectal examination negative.

1. **What is the significance of the mass apparently felt in the rectum?**
2. **Why is the urine so scanty?** purgation,
3. **What further tests should be made?**
4. **Diagnosis? Prognosis? Treatment?**

Treatment — stop purgation
diet: consult taste and don't
give irritating but don't
give insipid things —

[illegible]
[illegible]

Bromides for sleeplessness —
[illegible] grs [illegible] t.i.d. —
[illegible] gr xxx at night.
[illegible] —
[illegible]

an acute abdominal case ē remarks inf

Diff. Diagnosis — appendicitis
Perforating peptic ulcer
gall stones
Typhoid
~~Strangulated Hernia~~
~~Tabes~~
Cholecystitis
~~Dietl's Crisis~~
~~Tbc. infec. Kidney~~ —

gallstones cannot be absolutely ruled out in date

Tbc. infec. Kidney: urine normal — but might be if infec. not reached pelvis — but no tenderness (costo-vertebral angle)

Peptic ulcer: should have more tend. & rigidity locally — would expect perforation

Typhoid: 99.4 on fourth day against

Diagnosis — appendix or gall bladder —
Cabot thinks it was neither —

acute gastro enteritis —
free purgation may = gen tenderness
mass in rectum — Thick rectum may give sensation of something in rectum.
Dis evident axiety

no leucocytosis } against appendix.
no tendr. in appendix }

Dr. feeling discomfort in rectum,
enema ℞ 4-5 cooked starch [illegible] of [illegible]
for tenesmus.

Chicken pox -

A boy of 14, a new inmate of a reform school, is seized February 18, 1903, with headache, backache, and fever. His appetite became poor but he managed to go to his meals that day. Next day a red papular rash appeared scattered over the entire body. On the third day some of the lesions began to be pustular, and when he was seen by the writer on the fourth day the great majority were distinctly pustular and had a hard, shotty feel under the skin. Some were drying up and covered with dark red crusts. The fever was continued, ranging between 100° and 102°. The boy felt decidedly sick, and could take only liquids without nausea. Slight headache and general muscular soreness persisted.

The rash was nowhere confluent, and the skin between the lesions was normal. The internal viscera were apparently normal, as was the blood. The urine showed the characteristics usual in fevers.

It was subsequently learned that he had taken some cough medicine for the ten days ending one week before the present illness began. The nature of this medicine could not be learned. There were no other cases like this in the reform school.

1. Commonest causes of generalized pustular eruptions?

2. Diagnosis? Prognosis? Treatment?

Vermilion - modified varicella
Small Pox
Chicken Pox.
Pustular Syphilis — not alone.
× Eczema
× Acne
× Impetigo
} too much constitutional symptoms

Vermilion - M — too late.

Constitutional symptoms in favor of small p

× Some of lesions healing on 4th day is against small pox

A woman, apparently about 40, seen at hotel at 6 P.M., unconscious. Semi-dilated pupils, equal and responding to very strong light stimulus. The face is pale; pulse 90, regular, small, and soft. Respiration is shallow, with an occasional deep inspiration. Temperature normal. No blood or froth on lips; no odor to breath. No disparity between sides of face. Limbs flaccid, but firm supraorbital pressure causes motion in one or another extremity, so also firm pinching of leg muscles. No reflexes, deep or superficial; no œdema; no glands. Old, white, irregular scars seen near root of nose, on forehead and right cheek. Physical examination of thorax and abdomen negative. Urine by catheter, 1017, acid, no albumen, no sugar.

In the absence of all friends, the housekeeper states that the patient and her husband came there from a neighboring town the evening before. The husband was awakened in the night by some noise to find his wife unconscious. Later, she vomited, but she has had no convulsion as far as known, either now or previously.

1. Important causes of coma?

2. What strong evidence have we against opium poisoning in this case?

3. What can be inferred from the abolition of reflexes?

4. Diagnosis? Prognosis? Treatment?

Causes of Coma -
1) opium
2) uraemia
3) Hysteria
4) concussion.
Compression
5) Diabetic coma
6) arterio sclerosis
7) Syphilis -
8) Post Epileptic Coma -
9) apoplexy -

apoplexy - vs. no high b.p. & paralysis
Opium - 24° under observation. (8 hrs lim
Uraemia - normal urine - pulse 0.12.
Hysteria - kneejerks would be exaggerated.
Concussion & compression - no evidence of trauma
Diabetic Coma - onset sudden - urine [illegible] -
no evidence of [illegible] - Emaciation - odor of [illegible]
arteriosclerosis - low b.p. - also softening apt to give focal paralysis
X Syphilis - Scars suggest (also Epileptic [illegible])
Epilepsy - time long - always [illegible]
which usually ends in [illegible] coma -
Paresis - can't be absolutely [illegible] without history. though duration is long -

The patient is a man of 35, who has had fever and cough for two weeks. At the onset he had much pain in the front and right side of chest, near attachment of diaphragm. Had a chill on two successive days and on the fourth day. No dyspnœa; no sputa till sixth day, when a scanty, mucopurulent spit began and has steadily increased in amount and grown more purulent since. The fever has ranged from 101° to 104°, and at times there has been a good deal of sweating and slight delirium. Has taken liquids fairly well. Bowels are rather loose, as they have been off and on for several years. No pain anywhere now.

The man is sallow, dull, and listless; tongue clean. Poorly nourished. Over lower half of right chest marked dulness, with distant bronchial respiration and increased whisper; voice sounds nasal, especially near angle of scapula. Fremitus nearly absent. Over upper half of lung medium moist rales were heard on the first and third days and none on the second. Viscera otherwise negative, except slight tenderness and fulness in the abdomen.

Sputa examined twice for bacilli; none found.

Urine high colored, acid 1027, trace of albumen, no sugar.

Sediment: Abundant urates, leucocytes, and squamous cells. Few hyaline and coarse granular casts.

Blood: Red 4,200,000; white 26,000; Hg. 43%.

1. What points are against the diagnosis of typhoid fever (with complications) here?

2. Significance of nasal voice sounds?

3. What further examination is essential in this case?
4. Comment on the urinary sediment.

5. Common causes of leucocytosis?

6. Diagnosis? Prognosis? Treatment?

A young man of 21 is seen January 10. At the age of twelve he had very severe scarlet fever, followed by endocarditis, for the results of which he was under medical care for about three years. Of recent years his health has been very good and he has ridden the wheel fast and far without inconvenience. Rather more than two months ago he went to the doctor's office with a "cold"; temperature normal. A few days later he returned with a temperature of 103°, and said he had had night sweats. He was sent home, sat about the house for two days and then took to his bed, which he has not left since. A four-hourly chart has been kept for sixty-two days, and shows a continuous fever, ranging from 101 to 104, usually higher in the afternoon. On the seventh and tenth days after taking to his bed he had nosebleed. This he had occasionally when well. Cough has been a fairly constant though not prominent symptom, and twice has led to vomiting. The bowels have been regular with the aid of an occasional enema. Delirium has been practically absent. Early in his illness there were a few doubtful rose spots. The spleen has never been palpable. He has once or twice complained of some pain in his shoulders, but has had no other articular symptoms.

The pulse was about 90 at first, regular, of good strength. It has lately become irregular and rapid, some of the heart-beats not reaching the wrist. Under digitalis, brandy, and strychnia, the pulse has improved very much and is now regular, 100. Ever since he took to his bed he has been on an exclusive milk diet. The urine is sufficient in quantity with a large trace of albumen, granular and hyaline casts, specific gravity 1015.

The patient is pale, lies on his back, is not much emaciated, has a clear tongue, and complains only of weakness.

On physical examination the lungs seem clear. The heart's impulse is in the fifth space, half an inch to the left of the nipple. A systolic murmur is heard with maximum intensity over the impulse, transmitted into the axilla. Inside the left nipple is a doubtful presystolic murmur. The pulmonic second sound is accentuated, aortic second sound clear. The belly is slightly distended, duller at the flanks than in the centre, the dulness and resonance shifting somewhat with change of position. The blood shows a moderate leucocytosis and no Widal reaction.

1. In what diseases do night sweats occur?

2. Significance of the cough in this case?

3. How is your diagnosis affected by the third (short) paragraph printed above?

4. Name three common fevers which may run for weeks without touching normal?

5. What further valuable evidence might be obtained from the blood?

6. Why is the specific gravity of the urine so low?

7. If the spleen had become palpable, how should the diagnosis have been modified?

8. What further symptoms might appear which would clinch the diagnosis?

9. Diagnosis? Prognosis? Treatment?

A heavy middle-aged woman "took cold" on Saturday and was afterward distressed for breath. She was seen on Tuesday evening sitting up, breathing with some difficulty and with a wheeze, chiefly with expiration. The face was red but not livid. She complained of pain at the top of the sternum and side of the throat. There was expectoration of white frothy mucus and some tough brown masses. The voice was suppressed. The tonsils were not swollen, there was no exudation in the pharynx, and the epiglottis was not swollen. The pulse was rapid. The physical signs were negative with the exception of prolonged expiration. Temperature 99.9°.

1. (*a*) What are the commonest causes of pain referred to the sternum? (*b*) of sore throat?

2. In what diseases do patients wheeze?

3. Significance of inspiratory and of expiratory dyspnœa?

4. How might blood examination help in the diagnosis of this case?

5. What should you expect to find in the sputum?

6. Diagnosis? Prognosis? Treatment?

A rather nervous gentleman, 43 years old, both of whose parents died of cancer, moved from the city to the country about a year before his present illness began, and became quite active out doors, with benefit to his appetite and general health. The winter snows, however, forced him to be more sedentary. When first seen in consultation with the family physician, who had been called only four days before, he complained of obstinate constipation. For six weeks he had had darting pains in the lower abdomen, worse at night, but relieved by walking. The physician had first prescribed a laxative pill, which caused pain but no dejection. The next night he sat bending forward in pain most of the night, getting relief from an hypodermic of one quarter grain of morphia, twice repeated, which was followed by a fecal discharge. The bowels were soft, except for resistance corresponding to the ascending and transverse colon. The next night he had an ounce each of glycerine and castor oil, but was worse the following day. Some flatus escaped on the day of the consultation, but no fecal matter had come away for at least four days. The temperature had remained normal. There was no vomiting.

Physical examination showed a spare man, with an anxious face. Rectal examination was negative. The abdomen was distended with gas and somewhat tense, but nowhere especially tender. When the patient's attention was diverted, the resistance already described could be felt. The pulse was not remarkable at first, but after the examination it became rapid and feeble, improving again after a little brandy.

1. What special significance has the effect of the morphia in this case?

2. What can be inferred from the rectal examination here?

3. How do you interpret the absence of vomiting?

4. Why were his pains relieved by walking?

5. Diagnosis? Prognosis? Treatment?

A business man of 26, of good family history, habits, and previous health, is seen in November, 1900. In the latter part of July, after golf, which he plays with the left hand down, he suffered during part of the night from severe pain throughout the left arm. A month later he had a similar attack, not following golf, and the pain then recurred nightly after 1 A.M. During the daytime the pain was only occasional. About eight weeks ago he began to have "indigestion"—*i.e.*, a sensation as if food was arrested on its way to the stomach, which, apparently, managed it well enough after its arrival. About two weeks later a dry, harassing cough came on, troubling him most when on his back or right side, but also excited by taking food. Soon after this he noticed that the veins in his neck swelled up when he stooped over, and he had to have his head higher at night. Lately he has had severe night sweats. Pain, especially in his left arm, dysphagia, and dry cough are now the most prominent symptoms. There has been some loss of weight, more of strength.

He is pale, nervous, and excited. The pulse and respiration are normal in the erect position. Lying down causes marked dyspnœa. Toward the root of the neck on the left side discreet, non-tender lumps can be felt, without attachment to or reddening of the skin. Percussion is dull over the upper sternum, without prominence or pulsation. The radials are synchronous and equal in volume; the pupils are equal; there is no tracheal tug. Thoracic and abdominal exploration is otherwise negative. So also the urine. The axillary and inguinal glands are not enlarged. Hæmoglobin 70 %; reds 4½ million; whites 22,300.

1. What is the significance of pain which is worse at night?

2. What temperature should you expect in this case?
3. What importance has the age of this patient?

4. Diagnosis? Prognosis? Treatment?

A woman of 35, married ten years, five children. Has had considerable womb trouble and been treated for it by local physician. Of late, it has been less troublesome. Father died of cancer, mother of "a decline." For a year has had much to worry her, and has been running down and getting nervous. Is troubled with sour eructations after meals, especially in the morning. Bowels rather costive. Appetite as good as usual. Lost no flesh. Occasional severe headache, frontal and occipital. Sleeps poorly. "Hot flushes" frequent. For the last day or two (since coming to Boston) has been vomiting a good deal of greenish stuff.

When seen, was drawn and pinched in the face and nauseated. Complained of general abdominal pain, but no tenderness could be found, and physical examination was negative except a sharply accented aortic second sound. At times she was quite hysterical, after which she passed a large amount of pale urine. Very nervous, restless, and alarmed about herself. No fever; pulse 110. Complained at times of headache. Knee-jerks lively; no clonus. Uterus retroflexed and bound down with adhesions.

Diagnosis:

Prognosis:

Treatment:

A washerwoman, 68 years old, generally healthy, has been feeling poorly for a month and losing appetite. A week ago began to have pain in abdomen; at first all over, but later settling in the lower left corner. It is worse when she walks, but has not kept her awake until last night. She has always been constipated, and the bowels have not moved for two days; has eaten little for two days.

Examination: Emaciated, sallow, tongue coated, breath offensive. Temporal arteries stiff and tortuous. Heart dulness reaches to the right sternal border and up to the second rib. Apex just below the fifth rib in the nipple line. At the ensiform cartilage, a short murmur replacing the second heart sound and heard less distinctly elsewhere. First sound at the apex very short; heart's action somewhat irregular. Few moist rales at bases of both lungs, with slight dulness and diminished breathing over lower half of left back; voice sounds normal, tactile fremitus diminished. Abdomen slightly distended; tender in left iliac fossa, where a deep resistance is felt, but no tumor. Liver dulness from seventh rib to rib margin. Right kidney palpable. Urine normal color; acid, 1017; trace of albumen; no sugar. Sediment: pus, squamous, and spindle cells, calcic oxalate and mucus. Knee-jerks not obtained. Temperature, 102° at entrance to the hospital, normal next day. Pulse 100. An enema brought away a small movement, very dark in color.

1. What is the significance of tortuous temporal arteries?

2. How do you interpret the dimensions of the heart in this case?
3. How do you explain the murmur?

4. How does the significance of arhythmia in aortic regurgitation differ from its significance in mitral stenosis?

5. Name three common causes of cardiac arhythmia?

6. What sort of pulse should you expect in this case?
7. How much can be inferred from the pulmonary signs here described?

8. How do you explain the area of liver dulness here given?
9. What does the calcic oxalate mean here?
10. How is the temperature accounted for?

11. Diagnosis? Prognosis? Treatment?

A banker, 58 years old, of good family and previous history, of good habits except for very rapid eating, is seen May 1st. About a year ago his remaining teeth, which were few and inefficient, were extracted. False teeth were procured, but he has not been able to wear them on account of sore mouth, apparently subjective rather than objective. His wife states that for at least a year he has not been as vigorous as formerly. He says that during the summer his sleep was poor, without apparent cause. In June he took a vacation, but returned weaker than when he went, complaining of poor appetite and digestion, nausea and occasional vomiting. The vomitus was not characteristic. He did not gain in the summer and his complexion became sallow. November 15th, after drinking moderately of cider, diarrhœa came on; and between this date and February he lost fifty-one pounds in weight. Soon after this the diarrhœa was checked, and since the last of February loss in weight has been trifling, though his color and strength have continued to fail. His digestion is better, and he takes a fair amount of food. His main complaint at present is of weakness, lassitude, and shortness of breath on slight exertion. No fever has been noted. Several examinations of the urine have been made, all negative until a week ago when a single specimen showed sp. gr. 1008, albumen $\frac{1}{10}\%$, some pus—not enough, it was thought, to count for the albumen—and a few hyaline casts. The twenty-four hour amount is not known, but is believed by the attending physician to be increased. Pulse 84, regular, feeble, and of low tension. Temperature 99.6°. Marked pallor of skin and mucous membranes, with a yellowish tinge. Soft systolic murmurs are heard in the mitral and pulmonic areas; the heart is not enlarged. There is slight œdema of the ankles. Visceral examination is otherwise negative.

1. What chronic diseases are most prone to appear at 58?

2. What seems to account for the diarrhœa?
3. What is the significance of a urine of low specific gravity?

4. Diagnosis? Prognosis? Treatment?

A merchant, aged 35, is seen March 30. Has never been very rugged. Last summer had a cough which persisted until he went to the mountains. Lately has felt rather better than usual. On the evening of March 28 attended an elaborate dinner. Shortly after returning home, he had a chill and began to vomit, lobster and mushrooms being noted in the vomitus. On the morning of the 29th he complained of nausea and violent headache. Temperature 101°, pulse 96. Toward noon he began to grow stupid and within an hour could not be roused. The respiration became rhythmical with occasional intervals of apnœa lasting twenty-five seconds. The pulse also was rhythmical, varying from 38 to 108 as extreme limits, the lower rate corresponding to the periods of apnœa. On the morning of the 30th he had regained consciousness but was still dull. Headache much better. Temperature normal, pulse and respiration showed a hardly noticeable rhythm. Vomiting had not occurred since eleven o'clock the preceding day. He remained dull, but could be roused to take interest in his surroundings. Is constantly tossing about the bed. At five o'clock in the afternoon, his physician noticed that he was absolutely deaf. Examination of ears negative. He replied intelligently but slowly to written questions, but appeared to have some difficulty in seeing them. For the past twenty-four hours he has required catheterization. Temperature 98°, pulse 72, respiration 24.

Physical examination shows a pale but fairly well nourished man. Pupils contracted and unresponsive to light. Head moves freely except forward, in which direction motion seems slightly restricted. Examination of chest and abdomen negative except for a slight systolic murmur over the pulmonic area. Knee-jerks lively, but equal. No Babinski, no ankle clonus. Patient apparently has full control of all his muscles. White cells 16,000. Urine high-colored, sp. gr. 1024, acid, very slight trace of albumen, few hyaline and fine granular casts, no sugar. Amount in past twenty-four hours, 32 oz.

1. What is the significance of rhythmic changes in pulse and respiration?

2. How do you explain the cough of the previous summer?

3. What was the use of asking him to answer written questions?

4. Diagnosis? Prognosis? Treatment?

A married lady of 62 is seen March 1. The family and previous histories are good. Three years ago the left breast was removed by a competent surgeon for cancer. Since then her health has been good until December 15, 1902, when, for failing eyesight, she consulted an oculist, who found detachment of the retina in the left eye.

About January 1, she noticed that she was short of breath. After this she kept very quiet as exertion brought on dyspnœa. Dyspnœa has continued her main complaint, brought on by exertion, but, especially of late, often waking her from sleep. About two weeks ago she could lie on the right better than on the left side; since then there has been orthopnœa. She has a slight dry cough, no pain, fever, or vomiting. Bowels regular. The appetite is poor. Loss of weight has not been marked. The pulse is 112, regular. The right chest is dull on percussion above, flat below, with feeble respiration, diminished voice sounds, and fremitus. There is puerile breathing over the left lung, and a few fine rales in the fifth interspace in front. The heart's impulse is in the sixth space, anterior axillary line. The sounds are clear. The abdomen is negative; the urine, 1016–1018 in specific gravity, contains neither albumen nor sugar; the amount is not known, but thought to be normal for one in her condition. There is no œdema.

1. Name the most important causes of dyspnœa.

2. (*a*) Significance of orthopnœa? (*b*) In what diseases does it most often occur?

3. Causes of displacement of the apex impulse?

4. At what age is pleural effusion most common?
5. Why does she prefer to lie upon the right side?

6. What symptoms are likely to develop later in the course of this case?

7. Diagnosis? Prognosis? Treatment?

A shoemaker of 24, who has previously been well, has noted for six months, gradually increasing weakness of the legs. He dates the trouble from a fall from a horse car six months before, when he struck violently upon his knees and fell several times more on his way home. Kept at work till three months ago, when he took a three weeks' vacation and improved considerably; but, on returning, found himself unable to work more than half a day.

Two months ago the hands and arms began to get weak and numb, and now he can't button his collar. The hands feel rather better when he stirs about and uses them. For the past week has felt as if something were tied tightly about his waist. In other respects he feels perfectly well. He has never used alcohol and denies venereal disease.

Examination: Pupils equal and react normally. Soft systolic murmur at the apex, transmitted two inches to the left. Pulmonic second decidedly louder than aortic. No evidences of cardiac enlargement. Chest and belly otherwise negative. Deep tenderness over calves, thighs, and buttocks. Knee-jerks absent, muscular power feeble, sensation perfect, moderate general atrophy. Faradic irritability of the muscles impaired in both arms and legs. Galvanic irritability normal. At times the tips of the fingers sweat profusely.

When seen his temperature was 99.8°, pulse 120, respiration 24.

1. What can be inferred from the mode of onset here?

2. What can be inferred from the atrophy?
3. Causes and types of atrophy?

4. Causes of muscular tenderness?

5. What other types of tenderness are there?

6. What do (*a*) the electrical reactions in this case teach? (*b*) the sweating fingers?

7. Diagnosis? Prognosis? Treatment?

A married lady, childless, 55 years old, of good family history, is seen in February, 1900. She passed the menopause without difficulty, and several years ago had cystitis, with good recovery. During the winter of 1899 she travelled in North Africa, going to Germany toward spring. There her appetite became capricious and she suffered occasionally from slight nausea, without vomiting. She then had an attack of "grippe," which much impaired her strength. In the early summer she returned home, when her appetite and digestion improved much and her strength returned in great measure, though her friends remarked that she was distinctly paler than formerly. She considered herself well enough until five months ago, when she began to suffer from sciatica, at first and more severely in the right side, but later also in the left. About a month later her appetite failed again and more or less constant nausea came on, with occasional vomiting, the latter without relief or definite relation to either the time of taking food or its quality. Then came on very troublesome salivation, leading her constantly to spit up a clear, somewhat frothy fluid, which is sometimes poured out in such quantity as to run from her mouth. This persists to the present time. The sciatic pain now has practically disappeared. She has kept her bed for some weeks, losing flesh (though she is still stout), but sleeping well. Of late there has been slight bleeding from the gums, but no other hemorrhage has been noted.

Pulse 96, regular, soft; temperature 99, above which point it is said not to have risen. Except for marked pallor, physical examination is negative. The urine is negative and contains no arsenic. Several examinations of the gastric contents show neither free HCl nor lactic acid.

An examination of blood slides shows: Red cells 3,000,000 or thereabouts; white 15,000; Hg. relatively low.

Reds: Rouleaux well formed, deformities slight, no polychromatophilia, average diameter normal, one normoblast.

Whites: Polymorphonuclear 80%; lymphocytes 20%; eosinophiles 0%.

1. What types of anæmia are oftenest seen at 55?

2. What diseases are oftenest diagnosed (wrongly) as "Grippe"?

3. Significance of the absence of free HCl in the gastric contents?

4. What further information about the stomach is needed here?

5. Diagnosis? Prognosis? Treatment?

A bank president, 74 years old, of large frame, lost his father at 64 from apoplexy, his mother at about the same age from phthisis. Several of his sisters also died of phthisis. His health has been exceptionally good, and a daughter cannot remember his having taken to his bed before. During the past year his weight has gradually fallen from 240 to perhaps 190 lbs. His color has been poor occasionally, and it has been noticed that a sudden pull on the part of his horses while driving would make him cry out, "Oh! my stomach!" He has not been able to walk as much as formerly on account of pain in the back and dyspnœa. He has also had sleepy turns, even after breakfast, for a year or more. About four weeks ago, walking up a slight incline after a concert, he lost his breath and had to stop six times on his way home, even after he reached level ground. December 25 he sent for his physician for a "catarrhal cold." The pulse was 38, regular, the temperature subnormal; there was some œdema and eczema of the legs, and moist rales over the base of both lungs, without notable dulness or change in the quality of the respiratory murmur. He stayed indoors and three days later took to his bed. Very soon after this he had frothy, profuse and thin, pink expectoration, with somewhat labored but not quickened respiration. The slow pulse persisted. The urine was about a quart in twenty-four hours, normal in specific gravity, with hyaline and finely granular casts.

January 13 he was seen in consultation. His chief complaint was of weakness and anorexia. Digestion fair, bowels regular; practically no cough or expectoration. Most of the time is passed in sleep. He lies by preference on the right side, with the head low. He looks less than his age; the lips are slightly cyanotic, the respiration easy, the tongue moist and clean, the mind clear when awake. The pulse is 38, regular, synchronous with the apex beat. During the last fortnight it has never been found above 40, and has been counted at 24. The radial arteries are slightly degenerated. The cardiac impulse is in the fifth space, nearly an inch beyond the left nipple; dulness seems rather increased to the right. Systolic murmurs are heard in both the aortic and mitral areas, and the second sound is reduplicated at the apex. The lungs are clear. There is dulness below the right costal border, but palpation gives negative results in that region. Beyond slight œdema of the feet, physical examination is otherwise practically negative.

1. Common causes of loss of weight?

2. Causes of bradycardia?

3. How is the frothy, pink expectoration to be explained in view of the fact that at a later examination the lungs were clear?

4. What is to be suspected when epigastric pain seems to be brought on (as in this case) by exertion?
5. What physical signs should be looked for in the neck in this case?

6. Diagnosis? Prognosis? Treatment?

A well-developed and fairly well-nourished man, 18 years old, is seen for the first time February 26. His father died of consumption, his mother of rheumatism and heart disease. He has never drunk steadily, though occasionally to excess. He chews five cents' worth of tobacco and smokes twenty cigarettes daily. For eighteen months, ending seven months ago, he had almost daily coitus. For the last six months he has had gonorrhœa. When a child he had diphtheria, at fourteen typhoid, for the past seven months pain in the epigastrium, on rising, and latterly some pains about the head. Ten days ago, when he tried to get up, he had vertigo, chilliness, sweating, and a feeling of unsteadiness. He has been in bed most of the time since.

The symptoms were: weakness, backache, epigastric pain (without nausea or vomiting), cough with whitish expectoration, thirst, headache, and constipation. His chief complaint now is weakness, next to that headache and dizziness. There is some dyspnœa, but the cough is not troublesome. There has been no nosebleed.

The patient is pale. His pupils are equal and react to light. The tongue is protruded promptly and in a straight line, is not particularly tremulous and bears a slight white coat. Both sides of the chest move equally; there are no areas of marked dulness, of increased vocal resonance, or of bronchial breathing. A few coarse moist rales are heard persistently at the right apex. The heart's apex is in the fourth space in the nipple line. There is no murmur nor enlargement. The pectoral muscle contracts when percussed. The skin flushes easily. The abdomen is enlarged, tympanitic, not tender. There is gurgling in the right iliac fossa. The spleen cannot be felt; its area is tympanitic. The hepatic area is normal. There are no rose spots. The knee-jerks are lively. A few glands are felt in the left side of the neck, and on the right side is a scar. The white cells number 3600. Temperature 101°, pulse 80, respirations 25. The urine has a slight trace of albumen, with a sediment containing pus and squamous epithelium. No diazo reaction is present. No tubercle bacilli are found in the sputum.

During the next five days the temperature is irregular, varying between 99° and 103°. The respirations rise slightly, to 30. On March 1 a faint diazo reaction is obtained. The headache ceases after February 29. Constipation persists. On March 2 the physical examination is the same as on February 26. On March 3 there are involuntary micturition, Cheyne-Stokes respiration, and external strabismus. Nothing peculiar is noticed about the neck.

1. What are the most significant facts in this case?

2. What is the importance of the pulmonary signs?

3. Why is the cardiac impulse displaced upward?

4. What do you infer if a pectoral muscle contracts when percussed?

5. Does the course of the temperature curve suggest any particular disease?

6. What is the value of the diazo reaction in this case?

7. What is the value of the sputum examination in this case?

8. What further examinations should be made in this case?

9. How do you explain the condition of the neck?

10. Diagnosis? Prognosis? Treatment?

Single lady, 57 years old, always more or less of a nervous invalid, consults a physician for palpitation and dyspnœa on exertion. The menopause occurred five years ago, and since then she has been getting very stout and disinclined to exertion. She is thirsty and her skin is dry and perspires very little. Of late, the feet have been swelling and her face seems puffy all the time, not especially under the eyes. She is troubled a great deal with headaches, worse at night, and her hair has been coming out of late. No sore throat, but the shin bones are tender and the tissues over them pit slightly on pressure. The bowels are very costive, appetite capricious, sleep disturbed by headache. Her memory is very poor and she takes little interest in anything.

Physical Examination: Heart's area cannot be marked out on account of the great thickness of the fat layer. The apex is not seen or felt; best heard in sixth space, one inch outside nipple. Sounds heard feebly, action irregular. Pulmonic second sound accentuated; no murmur. Lungs and abdomen negative. Temperature 97.8°, pulse 100. Urine 1018, acid, large trace of albumen, no sugar. Amount two quarts. Sediment: hyaline, granular casts, small diameter, some with cells adherent. Blood: Red 6,000,000; white 12,000. Œdema of ankles. Hands and feet cold.

1. Cause of feeble heart sounds in this case?
2. What are the common causes of tenderness over the shins?
3. Why is the number of red cells so large?

4. What causes of headache are common at 57?
5. What further tests are important for diagnosis?

6. Diagnosis? Prognosis? Treatment?

A sailor, 39 years old, is seen on November 5. His mother died of "stomach trouble." Has had gonorrhœa three times, and 10 years ago a sore on his penis. No secondary symptoms were observed. Always well up to two years ago, when he began to have epigastric pain after eating. He vomited frequently and usually with relief of pain. After three months in a hospital, he improved somewhat, but after discharge the old symptoms returned and with them headache and alternate constipation and diarrhœa. He again entered a hospital and remained 6 months, but lost strength and weight steadily and vomited everything taken. The vomitus, occasionally amounting to a quart at a time, was often "dark in color, and now and then contained a streak of blood." The patient is much prostrated and emaciated. The abdomen is retracted, but more prominent in the epigastrium, where there is some rigidity of the muscles and a little tenderness. Physical examination is otherwise negative. Pulse 110, respiration 18, temperature 98°. Urine 1020, alkaline, no albumen, no sugar. The inflated stomach extends from the normal limit above to an inch below the umbilicus. Its capacity is fifty-four ounces. Two days ago, an hour after a test breakfast of one ounce of bread and ten ounces of water, twenty ounces of brownish fluid, containing much mucus, were withdrawn. Free HCl and blood absent. Lactic acid, intense reaction. Butyric present. This morning the stomach was washed out again, and a pint of oat-gruel was given. An hour and a quarter later twenty ounces were withdrawn which contained considerable mucus but no blood. Free HCl absent; combined, present in small quantity. Lactic acid, a trace. Total acidity, .237. The leucocytes before eating numbered 5600; after 7300. The stomach after inflation extended from the normal limits above to an inch below the umbilicus. Its capacity was fifty-seven ounces.

1. How many ounces of fluid does the normal stomach hold?
2. Significance of mucus in the stomach content?

3. Diagnosis? Prognosis? Treatment?

A woman of 41, with good family history, has been married twice. The cause of the death of her first husband is unknown. During her first marriage she had two miscarriages. By her second husband, who appears healthy, she has never been pregnant. She has no rheumatic history. For 10 years she has not been able to walk far without dyspnœa, but her health was good until seven years ago, when at Carlsbad she took several baths, and just after the last a sudden left hemiplegia developed. For 4 months she could not be moved, and the left arm and leg, though useful, have never regained full power. She has always risen once in the night to urinate. Yesterday she was as well as usual. She wakened her husband about 1 A.M. to-day, and again, later, spoke to him. By 4 A.M. she was semi-conscious, could not speak, and had a right hemiparesis, most marked in the face.

Next morning the color and nutrition were good, the face not flushed, respiration easy, the breath free from odor. The tongue was slowly protruded on demand, but her comprehension was much limited. Temperature normal. The radial pulse could not be counted: the apex beat was sometimes 44, again 72 per minute. The first apex sound was excessively sharp, the pulmonic second accentuated. No murmurs, no thrill. The heart did not seem enlarged. Complete aphasia and inability to swallow. She moved the right arm somewhat, the right leg a very little. Contractures of the left fingers. The superficial reflexes were absent; no deep reflexes in the right arm or left leg; knee-jerk present on right. Abdomen negative. The urine was 1012½ in specific gravity, pale, with a slight trace of albumen, no sugar, a few hyaline and fine granular casts.

1. Types of facial paralysis?

2. What odors in the breath are of diagnostic or prognostic value?

3. Diagnosis? Prognosis? Treatment?

A clerk, married, twenty-four, is seen Jan. 5. His family and previous history and habits are good. He went to bed the night of the 3d in his usual health and slept well. On rising in the morning he had a severe chill, but went to business. After an hour or two he was obliged to return home, feeling very weak and aching all over. He took to his bed, raised some bloody sputum, had some nosebleed, and passed urine freely without pain, containing much fresh blood.

When seen he did not look very ill; pulse 100, respiration 24, temperature 103.6°. He complained of no pain. Physical examination was negative, except for slight dulness with feeble respiration and fine rales over the left posterior base of the chest.

There were several discrete, viscid, tawny sputa in a cup. The urine was smoky, 1014, with a very large trace of albumen, urea 1.64%.

The sediment contained considerable normal and abnormal blood, rather numerous epithelial casts of large diameter, one disintegrated blood cast; one or two large, fine granular casts.

1. What diseases are apt to have such an onset?

2. What diagnostic data are wanting?

3. What conclusions can be drawn from the percentage of urea?

4. Diagnosis? Prognosis? Treatment?

An electrician, 31 years old, of good habits and family history, was seen September 25. Except for an attack of "inflammation of the bowels" two years ago his previous health has been excellent. His work has been hard, and for about two months past he has been consciously tired. About ten days ago he had a little diarrhœa. He was then all right for several days. While walking in the street the evening of September 15, he was seized with severe cramps in the abdomen, not localized, recurring through the night and preventing sleep; no diarrhœa or vomiting. The next morning the doctor saw him in bed with normal pulse and temperature, no abdominal tenderness; the bowels had moved twice normally since the advent of the pain. The next day more or less general pain was still present; tenderness over the lower abdomen, more marked on the left side, was noted; the temperature was 102° A.M., 103° P.M.; there was some diarrhœa. Calomel was given the day before, opium both days. September 18 the morning temperature was 104.5°, pulse 110, pain and tenderness were more marked, and slight distention was noted. At the evening visit the pain had moved to the epigastrium and subsequently continued high rather than low. The following day the temperature dropped to 100, pulse to 90. The bowels did not move from the 18th until the 21st, then after enema. Again on the 24th there was a large, partly formed dejection, and much gas passed the 25th. Vomited twice on 21st after barley water; not before or since. Abdominal distention has gradually increased. The mind was clear; the pulse fairly good; tongue slightly coated; decubitus dorsal with legs outstretched; moderate pain and tenderness in upper abdomen, not sharply localized; chest negative; abdomen moderately and generally distended, duller in the flanks and hypogastrium than superiorly, the dull areas changing somewhat with changing position. Urine and rectal examination negative. No tumor or localized resistance. Blood not examined.

1. Common causes of symmetrical abdominal distention?
2. What can be inferred from the statement "decubitus dorsal with legs outstretched"?
3. Diagnosis? Prognosis? Treatment?

A plumber of 40, of good family and previous history and good habits, had clap many years ago with good recovery.

One year ago he had an obstinate cough with expectoration (not examined) and a "patch" in his right lower front chest. He went to Florida and recovered entirely. About two months ago he noticed swelling of the face and neck, especially in the morning, and had to enlarge his collars. Stooping caused headache, a slight choking sensation, and swelling of the veins of his face and neck. After some weeks he had fever, malaise, and swollen tender glands (?) in the neck, especially on the left side. In the course of a week he was so much better that he resumed work. Recently the swelling of the face and neck have returned and are more marked in the morning. The left arm has also swollen, without pain or tenderness. He has had several nosebleeds, with relief to his head. Yesterday his temperature was 101.4°, to-day 99.6°. Pulse 80, regular. The appetite, digestion, bowels, and sleep and respiration, are normal. The eyelids have been puffy, but are not so now. The face, neck, and upper part of the thorax are swollen and hyperæmic. The veins of the arms and their valves are very distinct, especially on the left side, and are markedly dilated in the left lower axillary region and along the right diaphragmatic attachment. Visceral examination, the blood, and the urine are negative, also the throat. The voice is clear. No glands in either axilla or groin.

1. What are the possible causes of swelling of one arm?

2. What are the common causes of swelling of the face?

3. What can be inferred from the increase of the swelling in the early morning?

4. Diagnosis? Prognosis? Treatment?

A business man, 58, with good family history and habits, had, about twenty-five years ago, a severe rheumatic fever, disabling him for several months. Ever since then his pulse has been more or less irregular; but he has suffered no inconvenience until about two years ago when he noticed that walking up hill caused dyspnœa. Since then he has lost upwards of fifty pounds in weight. For the past three months he has driven to his business for an hour a day only, and been kept awake by dyspnœa and pain in the right side of the abdomen. Appetite has been poor and digestion impaired.

Pulse irregular, intermittent, rapid, not corresponding with the heart-beat. Respiration easy when quiet, temperature 98.6°.

Complexion sallow, with yellowish tinge to sclerotics. No cyanosis. Tongue heavily coated. Moderate œdema of lower legs. Lungs clear. Cardiac apex not defined to eye or touch. Percussion shows increase in the transverse diameter of the heart, the action of which is so rapid and irregular that only a doubtful systolic apex murmur can be heard. The second sounds are clear, the pulmonic not specially accented.

The belly is flabby, the navel not flushed. Percussion dulness in the flanks shifts with changing position. No fluctuation wave. Three inches below the right costal border and across the epigastrium a solid body, tender, with a firm edge descending with inspiration, is felt.

The urine, normal in amount, specific gravity 1028, contains a large trace of albumen, 2% of sugar, 1.26% urea, no bile, acetone, or diacetic acid. Sediment, a few normal blood globules, a rare hyaline cast.

1. Common causes of sugar in the urine?

2. How do you explain the loss of weight?

3. Commonest causes of pain in that region?

4. What caused the pain in the right side of the abdomen?
5. Diagnosis? Prognosis? Treatment?

P. J. G., 20 years old, a piano varnisher, was admitted to the hospital Oct. 3, 1903. For about a year he had suffered from occasional pain in the epigastrium, and for six months had always had pain after taking food. One week ago, he received a blow in the right hypochondrium while boxing, and after that had slight pain in that region until the day before entrance, when he was taken suddenly ill with violent, griping pain, starting in the epigastrium and spreading all over the abdomen. His bowels had not moved since this pain started. He vomited after taking warm drinks, and had a chill lasting one hour. He walked to the Out-Patient Department, where his temperature was found to be 100.3°, pulse 60. His skin was slightly yellow. The abdomen showed no distention. There was slight general spasm and tenderness over the gall-bladder region. No mass could be felt. The leucocyte count was 16,000. With rest in bed and emptying of the bowels by enemata, the tenderness and spasm over the gall-bladder region disappeared until on October 7 there were very few symptoms left.

Diagnosis? Prognosis? Treatment?

February 16 a lady of 30, married 8 years, is seen in consultation. She has had four children, the youngest four months old. After her second confinement had puerperal septicæmia. The catheter was used and cystitis apparently followed, as the bladder was irrigated. Vesical symptoms were troublesome after this, and five separate times she underwent prolonged treatment under an eminent gynæcologist. Finally, discouraged by the persistence of her symptoms, she resorted to "mind cure," with marked relief. Her last confinement was easy, but was followed by a return of vesical symptoms. For the last six weeks she has suffered from indigestion and has had frequent watery stools, preceded by abdominal pain. January 23 she came to Boston, and, acting on the advice of her "mind cure" friend, shopped, went to the theatre, and was generally very active. During this treatment she ate scarcely anything, and at the end of five days returned home. The next day vomiting appeared, and by February 1 the stomach retained nothing. The vomiting ceased within two days and has not since recurred. The bowels have continued loose, moving two to five times daily without notable pain. For two weeks there has been some cough, with little or no expectoration. Since February 1st, pyrexia has been constant, — as a rule, higher at night, though sometimes higher in the morning, ranging between 101° and 104°. The pulse has ranged between 110 and 140. No delirium.

The hands are clammy, the color of the face good, the eye bright, the mind clear, the knee-jerks lively. The chest and abdomen are negative, except for medium rales at both bases, and there is some tenderness along the colon. The urine is said to be negative. It is stated that she is a very reticent person and has never been known to be hysterical.

Diagnosis? Prognosis? Treatment?

A cigarmaker, 51 years of age, is seen March 15. Family history negative. Thirty-five years ago had tuberculosis of the knee, which recovered after operation, but left a stiff joint. Eighteen years ago he had jaundice and fifteen years ago syphilis, otherwise always well. Has used beer to excess.

About six weeks ago, while in his usual health, he had an attack of acute bronchitis for which he was given iodide of potassium. This he says upset his stomach and caused vomiting which lasted for a number of days. About two weeks after his cough began he noticed that his skin had a yellow tint which has been steadily deepening. Coincident with the jaundice a circumscribed reddish eruption appeared on various parts of his body and limbs, which was diagnosed by his attending physician as erythema multiforme. Itching has been general and intense. There has been no vomiting for over two weeks, but his food has been carefully regulated. His appetite is poor. He has lost much in strength and flesh. His temperature has remained near the normal line, but has occasionally risen to 100° F., particularly during the last week. The pulse has varied between 70 and 80, with a rising tendency. The stools are clay-colored.

Patient still preserves considerable fat tissue, but has evidently lost weight and looks sick. Deep icterus of a decidedly greenish tinge. Heart and lungs normal. The liver dulness begins at the sixth rib. Its lower edge, which appears to be smooth, can be felt about an inch below the costal margin. A fluctuating tumor of indefinite outline and size is suspected below the hepatic edge about in the mamillary line. Percussion over it shows an area of dulness about two inches in diameter. Deep palpation of abdomen reveals no other abnormality. No glandular enlargement, no characteristic scars. Urine contains much bile, but no other abnormal constituents. White cells 8000.

1. What points in the past history are most important here?

2. What diseases produce the deepest icterus?

3. (*a*) What is the tumor? and (*b*) what is its connection (if any) with the eruption and the itching?

4. Do you expect pain in this case?

5. What explains the fever?
6. Are any important data missing?

Diagnosis? Prognosis? Treatment?

A physician, 51 years old, is seen Jan. 15. Has had rheumatism off and on since childhood, but no cardiac symptoms; has walked a great deal and has done a large practice without a carriage. November 17, he began to have chills and sweating at irregular intervals, but kept at work until December 27, when he had sudden pain in the left leg, followed by some coldness and numbness.

Since December 30, there has been fever from 99.5° to 103°, with irregular chills. Few days ago, seized with pain in right arm, and the pulse was not to be felt in that wrist. Also a transitory blindness in right eye. Pulse 72, regular, good strength. Presystolic murmur at apex. No cardiac enlargement. Arms and legs now warm. The patient is bright and not feeling very sick. Spleen slightly enlarged, palpable, tender. Some doubtful rose spots. At the right base behind a patch of bronchial breathing about the size of an apple with crackling rales and increased voice sounds. No distinct dulness. Urine said to be negative.

1. Common causes of true chills?

2. In what diseases beside malaria may chills recur daily at the same hour?

3. Types of thrombosis?

4. Causes of presystolic murmurs? Mitral stenosis, "Flint's murmur" in aortic regurgitation, tricuspid stenosis, adhesive pericarditis?
5. What symptoms not here mentioned should you expect to see sooner or later in this case?
6. What should you tell the patient about his condition?

7. Diagnosis? Prognosis? Treatment?

A negress of 67 has had "falling of the womb" for forty years. To hold it up she stuffs a wad of cotton into the vagina and ties a tight bandage round the lower part of the abdomen. Some years ago a lump grew in her belly, — "sore as a boil." One night she heard a click, felt something give way, and "it all ran out the front passage," after which she felt all right. Eight months ago she noticed another lump in her belly, not tender, but sometimes "it kicks just like a baby."

Five days ago she "felt pretty smart," but had had no dejection for two days. Four days ago swelling of the belly, tenderness in the left groin and vomiting began. Three days ago had a small, hard dejection and ceased vomiting, but since then "the lump in her belly has been moving round and making a noise." Pain, distention, and constipation have continued.

Examination: Does not seem much sick. Temperature 100°, pulse 100, respiration 32. Chest negative. Belly much distended, tympanitic, and somewhat tender, especially in the left iliac fossa, where there is dulness and a rounded mass size of an orange can be felt. Pressure over this mass causes the cervi uteri to move down. No thorough pelvic examination is possible on account of tenderness.

1. What was the probable cause of the symptoms described in lines 4–6?
2. By what means can we secure abdominal relaxation when deep palpation is important?
3. What light might be thrown on this case by examination of the blood?
4. Should you recommend operation in this case?

Diagnosis? Prognosis? Treatment?

A laborer of 29 was seen March 5. Took to bed a week ago with fever. Now he looks very dull, with lips dusky, tongue dry, and brown, teeth crusted with sordes. Temp. 101.5°, pulse 100, resp. 32. His chief complaint is of nervousness and insomnia, but he admits that his appetite is very poor and that he has vomited several times within the past week. He denies alcohol and venereal disease.

Chest negative. Abdomen slightly distended, tympanitic, not tender. Spleen not felt. The skin is unusually smooth and silky. There is twitching of the arms and legs and tenderness of the latter. All his movements are very alert. Urine: Normal color, acid, 1020, a trace of albumen, no sugar, no diazo reaction. Sediment, much pus (microscopic) and mucus, a little normal blood. The Widal reaction is negative.

Scattered over the whole body is a dull red macular rash, about the size of a split pea or smaller. In places it is copper-colored.

1. What explains the condition of the mouth?
2. (*a*) What are the commonest causes of insomnia in a laborer of 29? (*b*) In old age? (*c*) In a baby?
3. Diagnosis? Prognosis? Treatment?

A prominent manufacturer, 62, of good habits and family history. Never previously sick. Has been much confined for a year and weight has increased from 164 to 174 lbs. Was seen February 15.

Shortly before Christmas he noticed shortness of breath on walking. His urine at that time was pronounced negative. The dyspnœa on exertion got no better and substernal pain extending over the arms was soon superadded. This pain was not very severe, and came on only during exertion. About two weeks ago, after a hearty, rapid, and rather indigestible mid-day dinner, he was taken at his mill, without antecedent exertion, with a very severe attack of pain as above described. When his physician reached him he was in a cold sweat and seemed alarmingly ill. Pulse 80, regular. After two hours he was driven home four miles, arriving with pulse at 80 and temperature at 97.5°. The next day the pulse was 100, temperature 100°, rising to 120 and 102° the next day. There was bloody expectoration, with signs of consolidation at the right posterior base. For the past week the pulse and temperature have been normal. When seen February 15 he stated that he felt perfectly well. He looked rather pale, lay in bed with his head low, breathing easily, not cyanotic. The pulse 80, intermitted occasionally. The artery was soft, tension not high. No œdema. The heart was not enlarged; sounds clear. A few rales without dulness over the left posterior base. Percussion was dull with resistance an inch below the right costal border, but the liver edge could not be felt. The urine, 52 to 54 oz. per diem, contained a decided trace of albumen and a few hyaline casts, sp. gr. 1020, urea 2%.

1. What diseases increase weight?
2. Causes of bloody expectoration?

3. Diagnosis? Prognosis? Treatment?

A gentleman of 82 is seen April 17. He has always enjoyed good health, except that a number of years ago he suffered from attacks of pain in the right upper abdomen, diagnosed as bilious colic, and for which he kept morphine constantly on hand. During the past year he has aged rapidly, but he attended to business regularly until a month ago, when painless jaundice came on and rapidly deepened, the stools being clay-colored. A week ago the jaundice seemed less and some color was seen in the dejections, but this was only temporary. The appetite and digestion have been fair; he smokes a good deal. He has been up until to-day, when increasing weakness induced him to remain in bed. Pruritus has interfered much with sleep. The temperature has been normal until to-day, when 100° was registered. The pulse has been regular, about 70; yesterday it was irregular and intermittent.

When seen he was sleeping in the right dorsal decubitus, with easy respiration; pulse 68, regular, of fair strength and volume. Icterus intense, the tongue heavily coated, the mind clear.

Thoracic examination gave negative results, except for slight crepitus at the right posterior base. A smooth edge could be felt below the right costal border, descending with inspiration, not tender. The gall-bladder could not be felt. Abdomen soft, otherwise negative. Urine sufficient in amount, 1018 in specific gravity, deeply icteric, with a trace of albumen, hyaline and granular casts.

1. Name and distinguish five common varieties of colic?

2. What significance has the fact that the gall-bladder is not felt here?

3. What cerebral symptoms are likely to appear later in this case?

4. When a patient ages rapidly what disease is probable? Diagnosis? Prognosis? Treatment?

A young married woman of 21 had an abortion done at the third month. Immediately following this she began to vomit occasionally, and after two days could retain nothing. The lochia were sweet, temperature normal, and there was no tenderness in the pelvis. Rectal alimentation was tried for three days and the vomiting ceased, but recommenced as soon as liquids were given by mouth. Again rectal feeding was tried, but this time the vomiting did not cease. The nutrient enemata are fairly well borne, the nurse says, but the patient is very sleepless and thirsty and has four or five severe retching spells in every twenty-four hours. She is seen in consultation on the sixth day of rectal feeding.

The temperature and pulse are normal, as they have been throughout; the voice clear and the patient moves strongly in bed. Examination of the chest, belly, and pelvis are entirely negative.

1. How can we determine during rectal feeding whether the enemata are being well borne and absorbed?

2. What means should be used to control the retching in this case?

3. What important parts of physical examination have been omitted?

4. Significance of the normal pulse and temperature here?

5. Diagnosis? Prognosis? Treatment?

Man, 66 years old, has had for fifteen months pain; for the first month it was referred to the right hip and buttock. Later, it was felt in the small of the back and in both scapular regions; for six months, pain has been felt in the other hip and occasionally in both legs.

For a month he has had considerable cough, with sputum, occasionally blood-streaked. He has always been finicky about his food, but complained of no special digestive disturbance, except loss of appetite and constipation, which have been continuous and accompanied by loss of flesh. He was previously very fat. For several weeks he has been in bed. Of late has had several attacks of retention of urine, needing catherization.

Examination: Spare, but by no means emaciated; arcus senilis marked. Heart negative, so also the lungs except for scattered patches of rales in both backs and in the right axilla. Abdomen negative. Knee-jerks normal; no tenderness or loss of sensation. Spine straight and not tender.

Urine 1016, alkaline, trace of albumen, considerable pus and squamous cells. Blood: Red cells 3,810,000; white cells 17,000; hæmoglobin 55%. In the stained specimen polynuclear leucocytes were abnormally increased and three normoblasts were seen during a differential count of 500 leucocytes. Temperature 99, pulse 90, respiration 22.

1. What is the significance of the temperature in this case?

2. What all-important diagnostic data are here lacking?

3. If the knee-jerks had been absent, what other disease should be considered?

4. How are the lung signs to be interpreted?
5. What further knowledge do we wish regarding the spine?

6. Diagnosis? Prognosis? Treatment?

A girl of 19 is seen May 26. Her maternal grandfather died of phthisis. Family history otherwise good. She has always been rather pale and delicate, but had no definite or serious illness. Toward the end of February she consulted her physician for slight swelling of the glands on the left side of the neck. The temperature was slightly elevated when taken after this, and during the next two weeks the glands increased considerably in size and she had some cough, apparently due to bronchitis. Toward the end of March she began to improve and the glandular swelling to subside. The appetite increased and she got out. Two weeks ago she was less well; fever returned to a moderate degree, as did cough, and slight crepitus was heard under both clavicles. One week ago, the day being mild, she sat on the doorstep and experienced a sudden pain at the root of the nose, just between the eyes. This pain extended over the forehead, increased in intensity and was relieved more by cold than by hot applications. Four days ago without obvious cause she vomited once. The next day she vomited again and the headache became intense. For the past forty-eight hours she has retained nothing on her stomach. To-day, there was slight hiccough after vomiting and the menses appeared, the first time for three months. Morphia by the mouth gave her no relief. In the last twelve hours she has had three suppositories containing a quarter of a grain of morphia each, with only partial relief to her headache. Before the morphia was begun the pupils were large, equal, and reacted equally to light. Her aunt states that the pupils have always been large. They are now moderately contracted, equal, and respond normally. Photophobia. The pulse has ranged 90 to 100. Temperature 99° this morning, 100° last night.

The pulse is now 60 to 100, changing its rate quickly and frequently. Respiration easy. The mind seems clear, but she is very disinclined to talk or make any effort.

The glands in the right side of the neck are slightly enlarged. The heart is negative. No rales are detected over the fronts. The backs are not examined as it does not seem wise to disturb her to that extent. Abdominal examination gives negative results. The reflexes, superficial and deep, are not obtained. Urine negative. Neither the sputum nor the blood have been examined. There is no paralysis.

1. What can be inferred from the effect of the morphia here?

2. Significance of the way the headache came on?

3. In what diseases do the pupils give the most important information?

4. What cervical tumors are commonest?

5. What help could be gained by examination of the blood and sputa in this case?

6. What other examinations should be made?

7. Diagnosis? Prognosis? Treatment?

A coachman of 45, of a very neurotic family, has had dyspepsia for fifteen years. Any worry or excitement brings on distress and sour eructations. Three years ago had "spinal meningitis"; since then never well in mind or body. Forgetful and bewildered up to the last two months, when he became much clearer and has since devoted himself to his health. Two spots, one over the left kidney and one on the top of his skull, feel hot to him. Also numbness on the left leg, less noticed when he is busy. Left hand always colder than the right.

Since the fever three years ago his dyspepsia has been worse. Almost any food distresses him after a time. More than one half a cupful of any liquid causes vomiting, and despite care he vomits very frequently. No blood or brown stuff in vomitus, which consists of food and slime.

Pain and tenderness in the epigastrium are almost incessant. Appetite excellent, bowels always costive, sleeps poorly.

Examination: Rather thin, good color, tongue protruded very far. In epigastrium, a resistance uneven, soft and doughy in feel, dull on percussion and very tender. The lower border of it is well defined, especially on the left. At times, movements, apparently peristaltic, can be felt there. Visceral examination is otherwise negative.

The stomach tube was passed and abundant free hydrochloric acid found, but the ingestion of over 6 ounces of liquid caused the patient great pain, which lasted for two hours after the tube was removed.

The patient was constantly expectorating saliva, and stated that milk always poisoned him, and that the only food that agreed with him is wild game. A partridge was procured for him, but he had a bad night after it, because, as he said, he tasted some of the shot with which the partridge had been killed. He remained in the hospital from November 1 to November 11, 1892, and then left unimproved.

Diagnosis? Prognosis? Treatment?

A single man, 37, in business, six feet two inches tall, weighing 246, states that several members of his family have had heart disease, one dying suddenly. He is seen March 3, 1903. He denies lues, but has had five or six attacks of clap, the last three months ago. Coitus is not very frequent. He drank freely until three years ago when he had phlebitis in the left leg. At this time he weighed 200, was treated at Aix-les-Bains, lost 30 lbs., and felt better for it. Since then he has taken three or four whiskies a day. A year ago he was under medical care for a short time with indefinite symptoms, the pulse never rising above 100. Last summer he played 27 holes at golf without inconvenience. In October, 1902, he had business worries which kept him awake more or less for several weeks, and during this time he drank more freely again. He takes no regular exercise; is fat, flabby, and colorless.

Four days ago he called in his physician for vague discomfort in the upper abdomen and irregular bowels. The heart's action was then regular in force and rhythm, varying in rate from 160–180, only countable with the stethoscope over the apex. He sleeps with only one pillow, on either side, and has not been directly conscious of his heart, even on such exertion as is incidental to his life. In spite of absolute rest for four days, the heart continues rapid. Temperature normal; urine negative. He wishes to get up and attend to business. He does not seem, and says he does not feel, nervous. The appetite and digestion are good enough; the tongue clean, the gums healthy. The heart-beats are quite regular, 160 per minute, counted with the stethoscope, and the rate does not vary whether he sits, stands, or lies down. The cardiac impulse is visible and palpable only when he lies on his left side; it can then be localized about an inch to the left of the nipple, in the fifth space. Percussion yields somewhat unsatisfactory results on account of the thickness of the chest wall, but dulness seems to extend slightly beyond the nipple as he lies on his back. The sounds are clear, save in the left lateral decubitus; in that position, a slight systolic murmur is audible at the apex. The lungs and abdomen are negative. The superficial reflexes are absent; the knee-jerks slight. There is no tremor. There is slight œdema of the legs and a corded vein (?) can be felt in the left calf. He wears Boston garters.

1. What form of alcoholic drink has most often a demonstrable and permanent effect upon the heart?

2. What inference is suggested by the absence of arhythmia in this case?

3. Among the methods of examination not yet employed in this case, which are likely and which unlikely to yield valuable information?

4. Has the venereal history any relation to the present symptoms?

5. Causes and types of tachycardia?

6. Diagnosis? Prognosis? Treatment?

July 20, 1905, a girl of 16, previously healthy, was attacked in the morning by pain in the sternum with a sense of pressure. Later the pain extended round the chest and became severe on any movement of the intercostal muscles — so that breathing was painful and shallow. She felt feverish and nauseated, and in the evening her temperature rose to 101°. She slept fairly well and next day her fever was gone and she was almost well; walked, drove, and ate her meals with good appetite. On the third day the pain and fever returned and both were worse than before; the pain extended round both sides of the chest, from the armpit to the bottom of the ribs, and also into both shoulders. In the evening the temperature was 103°. Next day she remained in bed feeling greatly improved, but still somewhat sore and achey.

On the fifth day the pain came three or four hours earlier than in the previous attack, and was agonizing in character. The temperature reached 104° in the evening.

There was no chill, no sweating, and no cough at any time. Visceral examination was negative — also the urine. The blood was not examined. Calomel was given on the fourth day, without relief.

1. (*a*) Causes of severe thoracic pain? (*b*) Of mild thoracic pain?

2. By what additional data could diagnosis be made easier here?

3. Diagnosis? Prognosis? Treatment?

A Lithuanian teamster, 48, entered the hospital, April 22, 1904, with the following history: Parents died of old age. He uses thirty-five cents' worth of tobacco a week, alcohol occasionally. He has always been well until April 15, when he went to work feeling all right. In the afternoon his neck began to pain him, he was chilly, then felt hot, and sweat a good deal. Later his neck began to swell and became more painful. His throat was sore, dry, and painful on swallowing. Two days later he started to work, but had to give up and came to the hospital.

Physical examination showed a well-nourished man with slight prostration. Slight conjunctivitis. Tongue protruded in median line. Throat dry, red, with considerable dirty secretion on the walls of the pharynx. Slight cyanosis of the face and finger-tips. Neck short, thick, and reddened at the base with brawny induration. Redness and induration extends down over the upper part of the chest. Tenderness and swelling at the posterior edge of the sterno-cleido-mastoid muscle at either side.

Inspection shows no enlargement of the veins of the upper chest or of the arms. Percussion of the chest shows dulness over manubrium, extending one finger's breadth on either side. Lungs are apparently normal. Heart's apex in fifth interspace nipple line. Right border at right sternal edge. Sounds distant, no murmurs heard. Pulse 120, regular, fair volume and tension. Abdomen full, tympanitic, not tender. Liver and spleen not enlarged. Knee-jerks present, no paralysis, no Kernig, no œdema, no general glandular enlargement. Blood showed red cells 5,001,800, white cells 21,700, Hæmoglobin 90%. Differential count of 200 leucocytes showed: Polynuclears 78%, lymphocytes 22%, eosinophiles 0. Urine normal, acid, sp. gr. 1021, albumen slight trace, chlorides diminished. Sediment: numerous hyaline and fine granular casts, with occasional cells adherent. Occasional free mononuclear cells, rare blood corpuscle. Temperature 101.4°, respiration 25.

April 24. Delirium for past two days requiring restraint. Quieter this morning. Throat somewhat cleaner, less cyanosis and tenderness in neck. Otherwise physical examination unchanged.

May 1. Temperature has ranged from 101.4° to 99.5° to-day. Pulse from 120 to 100, respiration from 25 at entrance to 35 to-day.

May 2. Tumor at side of neck apparently increasing in size. Some œdema over the neck, and the small veins of that region more prominent. Bronchial breathing over the right infrascapular region, with a few rales just below the angle of the scapular. Some cough and

frothy sputum. Laryngoscopic report: "No œdema or paralysis of recurrent laryngeal, but some pressure œdema of left ary-epiglottic fold."

May 6. Considerable cough and expectoration. Some abdominal pain; has lost considerable weight. Fever lower; cervical tumor decreasing.

1. Causes of substernal percussion dulness?

2. Significance of the lack of eosinophiles here?

3. How is the patient's delirium to be accounted for?

4. Of what diagnostic value is the fact that Kernig's sign is absent?

5. What further facts are needed for diagnosis in this case?

6. Diagnosis? Prognosis? Treatment?

Mrs. M., 51, is seen August 9, 1905. She has been in bed since July 4, suffering from "a complication of diseases," and her medical attendant has been changed several times.

She had nervous prostration fourteen years ago, and has never been well since, but except for children's diseases she has had no other definite illness. She has had eight children—the last six years ago—and, until recently, has done most of the housework for the whole family.

Her present illness began July 4 with diarrhœa, vomiting, fever, and sweating. These symptoms passed off in about three weeks, but there have been suggestions of a return of them several times, and she has not regained her full strength. Insomnia is a very troublesome symptom, and in the long, wakeful hours she sometimes has spells of "weakness," for which aromatic spirits of ammonia is taken with some relief. There are also "smothering spells" when she feels as if she must get up and walk, and is restrained only by the strict orders of her physician.

She has never been a hearty eater, but the appetite is now very fair. There is no pain and the bowels move with the aid of laxatives.

Examination showed a stout, pale woman, with a temperature of 99°. The size of the heart could not be exactly determined on account of fat, but the sounds were normal and were loudest in their normal sites. The peripheral arteries were normal. At the beginning of the examination fine crackles were heard at the base of each axilla, but they disappeared after a few deep breaths and were not heard again. Liver dulness begins at the seventh rib, and the edge can be felt below the ribs. Otherwise visceral examination is negative. Hæmoglobin 90%. Urine normal.

Diagnosis? Prognosis? Treatment?

Mr. V., a theatre usher of 47, unmarried, lost his voice six months ago. Since then it has gradually improved, until now he speaks quite audibly. Otherwise he has been well and worked steadily and hard,—though occasionally he has felt an ache between his shoulders for one half a day or so. On one occasion, three months ago, this pain occurred while he was walking and almost took his breath away for a few minutes. Since this time there has been no pain. Insomnia has troubled him for many years, and he gets little sleep after 4 A.M. He admits that he is of nervous temperament, and has been considerably worried. There has been no cough, no emaciation, and, so far as he knows, no fever. Appetite good, bowels regular. His regular weight is 158.

Examination shows a healthy-looking man with no fever. Weight 160. The heart's apex in the fifth space, three-quarters of an inch outside the nipple. The heart sounds are clear — the aortic second loud, low-pitched, and easily palpable. The pupils are equal and react normally. The pulses equal and synchronous. Bronchials slightly tortuous and have a lateral excursion. No thrill or abnormal dulness in the front of the chest.

At the left apex behind, there is dulness, increased voice and fremitus, and whistling breathing (stridor). In the right side of the neck is a mass the size of a goose's egg; its lower portion is hard and seems connected with the clavicle. Above, it pulsates strongly. The whole is smooth and not tender. Laryngoscopic examination shows the left vocal cord in the cadaveric position. The blood and urine are normal and visceral examination is negative, except for the deviations noted.

1. Causes of accentuated aortic second sound?

2. Causes of hoarseness or aphonia?

3. What is the cervical tumor?

4. Diagnosis? Prognosis? Treatment?

Called to see a young girl of 21, single, who is said to have had, twelve hours before, a large pulmonary hæmorrhage,—a pint, after a few days' cough. Previously well, but nervous; easily startled and frequently troubled with food "going the wrong way," and causing symptoms of temporary spasm of the glottis.

When seen, could only speak in a whisper; throat examination was impossible on account of gagging. Lungs entirely negative, except slight dulness and prolonged expiration at right apex. Heart somewhat rapid; systolic murmur at base of the heart, loudest in pulmonary area. At the root of the neck, in front, a swelling size of a hen's egg, smooth, soft, not tender. Abdomen negative. Face very pale, lips less so. Slight œdema of ankles.

Urine pale, acid 1018; albumen, slightest possible trace; 1% of sugar; amount, 2½ quarts. Sediment, mostly squamous and neck of bladder cells. Few small hyaline casts.

Blood: Reds 4,800,000; whites 10,000; Hg. 60%.

1. What further information is needed about the hæmorrhage here?

2. If hemorrhage were due in this case to phthisis, what physical signs should one expect to find twelve hours after?

3. What else may cause such hemorrhage?

4. How is the œdema of the ankles to be accounted for?

5. What other causes of œdema can you name?

6. Significance of the lung signs in this case?
7. By what further methods of examination could their significance be more definitely determined?

8. Name three causes of systolic murmurs loudest in the pulmonary area.

9. Can the neck tumor be connected in any way with the glottic spasm? Why or why not?
10. From the data given about the blood, what should one expect to find in the stained blood-film?

11. What conclusions should be drawn from the urine in this case?

12. Diagnosis? Prognosis? Treatment?

Fireman, 57 years old, had scarlet fever at 9 years, apparently without ill results. Otherwise he has been always well till six months ago, when on a vacation he ate some canned oysters in the form of a stew. One half hour afterwards breath was suddenly shut off. No pain, vomiting, or other symptoms. Troubled with respiration ever since when in midst of fire smoke. Lost 30 lbs. in three months. Four weeks ago, when turning in bed, noticed a swelling in the left loin which seemed to move with change of position. No pain or tenderness and no change in urine.

Examination: On left side two tumors are felt below the ribs; one above and in front feels like a spleen. The other is more rounded and deeper. Both move with respiration. The lower tumor is somewhat tender and apparently elastic. Belly otherwise negative. Lungs negative. Heart not remarkable except for a loud ringing aortic second sound. Brachials tortuous and move laterally. Urine 1018, 40 oz. in twenty-four hours. Slight trace of albumen. Few hyaline and fine granular casts, some with cells or fat on them. Blood normal, no fever.

1. What are the common causes for the appearance of slight dyspnœa in a man of 57?
2. What was the action of the canned oysters?
3. (*a*) What abdominal tumors move most freely with respiration? (*b*) What least freely?
4. Enumerate some of the conditions in which such a urine is often seen?
5. What important and simple methods of examination have been omitted?
6. What questions should be asked with reference to the loss of weight?
7. Diagnosis? Prognosis? Treatment?

INDEX OF SIGNS AND SYMPTOMS

INDEX OF SYMPTOMS ARRANGED BY SYSTEMS OF ORGANS

DIAGNOSES

Prognosis –
1] will he get well
2] How long will it take him
3] will he stay well –